

mmiR

MILITARY MINIATURES in REVIEW

no. **58**



Meng's Menacing Merkava

Diagnosis Diorama:

Creating an Ardennes backdrop for the M10

Buffalo Soldier: Dragon's Bison II

M17: Russkie Meat Chopper

A Cherry Chi-Ri and a Crunchy
Chi-To: The FineMolds kits

Patrol in the Debris Field:
Somethin' Different

Medic! Resuscitating the WC-54



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ON THE COVER:

It's always a pleasure to have a new feature from the talented hands of Roberto Reale of Royal Models. This time, Roberto focuses on a ruined street section in the Ardennes. Naturally, all the elements are completely scratchbuilt. Within this scenario, he places a Jeep and an M10. Of course, these aren't just any models—they are massively super detailed with scratchbuilt parts and Royal products. And of that wasn't enough, he sculpted and whole bunch of figures to populate the diorama, too! Get the whole story by flipping on over to page 52.





From Your Editor

Where's my magazine?

Where IS your magazine? Hopefully it's right in your hands—where it's supposed to be. It has definitely not been coming out as regularly as it should. So the question really is: Why is my magazine—not coming out at the expected interval? Well, I am here to tell you. I will start off by saying

that this is not an explanation, or an excuse. What follows are simply the plain facts. I feel that that I owe this story to our loyal audience, especially those that

have put their hard earned money up front as subscribers.

In 2009, what was once Ampersand Publishing Co., Inc. became a wholly owned subsidiary of HobbyLink Japan. The existing company was disbanded and a new one was created called The Ampersand Group, Inc. At that point, we embarked upon a rapid expansion. We hired several people, changing the structure of the company. We also moved our offices into a larger, dedicated building.

We did all this to finally create a sound financial platform for the production of MMiR, Allied-Axis and all of our other products. It was decided to make a serious and direct effort at putting our teeny company on the map once and for all.

This was a difficult transition to make, but it was ultimately successful. We enjoyed a banner year in 2010, releasing a bumper crop of publications and generally growing. We were very fortunate to have developed a relationship with HLJ and I remain eternally grateful for their willingness to assist us in obtaining our business goals.

Our partnership with HLJ created a financially secure environment that allowed us to grow rapidly—not always and easy thing for any company to accomplish. What I did not realize at the time was that our success was solidly tied to that of HLJ.

The basic business model of HLJ is very similar to that of other Japanese export companies you may have heard of. Companies like Toyota, Nissan, Honda, Isuzu and others sell products overseas, receiving their income in dollars and Euros. Being based in Japan, all of their expenses are in Yen.

A favorable exchange rate can make such businesses very lucrative. In fact, it was this favorable exchange rate that fueled the success and expansion of many of these companies and that included HLJ. More Yen for the dollar is what makes that particular world turn. Historically, the rate hovered around 110-115 to the dollar, once going as high as 123. However, unknown to many Americans, a substantial financial crisis developed in Japan in mid 2010 and the value of the Yen decreased rapidly falling to 80. This was accompanied by the general financial slow-down of the all of the world's major economies (details of which could fill all 80-pages of this magazine, so I'll stick to the basics).

This was pretty tough stuff. Imagine if your paycheck was suddenly reduced by a third. The financial support of our parent company evaporated in manner of months. This was particularly frustrating as we were very close to the point where their support was no longer necessary. We had nearly reached the pinnacle of our expansion and were within 90 days of our goals.

The solution at that time was pretty drastic. The home office was explicit: turn back the growth. Shrink it down to where it was. In fact it had to be shrunk past where we were. More direction: hunker down and wait.

I won't relate all the boring details of the interim, but suffice it to say; we got very close to packing it in—more than once. Having narrowly missed our window for final independence, we were now entirely dependent our parent company for financial assistance at a time when there was almost none to be had.

The dilemma was always, how does one explain this to the subscribers? Especially when there were so many unknowns and so much flux. No one really knew when and if the financial situation was going to change (I can state that it did get worse in the third quarter of 2011 when the Yen hit its all-time low of 75 to the dollar). During this time, we produced the magazine when we could and that was at best, intermittent. So it was often a matter of waiting for news when there was no news.

Let's fast forward a bit. Things have changed for the better. A significant shift began to take place in the Japanese economy at the end of last year. The Yen starting climbing back up. As I write this, the rate is back to 103 to the dollar—a high not seen since 2008!

Due to a new arrangement with HLJ, our immediate priority was to develop a product that could sustain us while we completed our recovery. Obviously, this product must be the one that has the most potential for success. In development for over eight years, this became the Sherman book. So, although we continued to create material for MMiR, Allied-Axis and The Visual History series, we were instructed to make the completion of this product our highest priority. Unfortunately, this caused things to get slightly worse before that got a lot better—slightly worse for MMiR, in that we still remained substantially behind schedule.

Now that the Sherman reference title is behind us and the fiscal outlook much improved, we can turn our full attention to MMiR (the Sherman modeler's guide is also well along). What you are holding in your hands is a partial result of that effort.

All of us within the organization remain committed to our products and our customer base. HLJ is back with a vengeance, having become a much more efficient company as a result of their own lean times. They have substantially increased their inventory and product lines and are now one of the largest hobby retailers in the world.

We will continue to offer what we believe is the best military modeling magazine out there. As the year progresses you will see it a lot more!

There is a rich variety of material within the pages of issue 59. I hope to continue making substantial positive changes to our content and format throughout the coming months.

As always, I sincerely appreciate your readership and your business.

—Pat Stansell

www.ampersandpubco.com



No shoes, no shirt and still get service

PAT STANSELL

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MOE D'LAWN

We pay him just to be our friend

TONY BONTATIBUS

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Short Takes

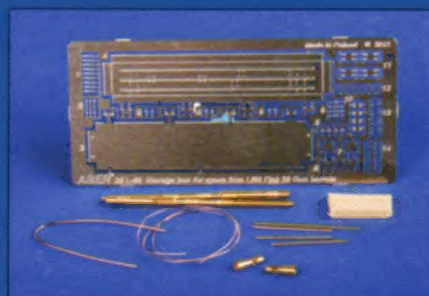
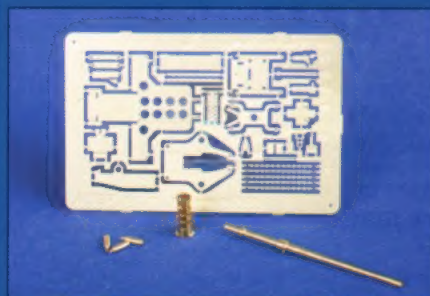
what's new, anyway?

Aber

Just when you thought it was safe to go back in the water, the photo-etch leviathan that is Aber pops back up again. They have been quiet for a little while, but they now have some very relevant new sets out: 35247, Finnish Army Assault Gun BT-42 Vol.1 Basic Set; 35250, Israeli Tank M1 Super Sherman; 35251, Israeli Tank M51HV ISherman Vol. 1- Basic Set and 35252, M51 HV ISherman Vol.2 Fenders & Tool Boxes. We got to take a close look at the new sets for the Tamiya Israeli Sherman and they are truly super.

Some other small bits that you might find useful are: 35A119, PSP Pierced Steel Planks Set; 35A121, Soft Cars, Trucks Wipers & Mirrors WWII Period; 35L-80, Barrel to U.S. Cal .50 Heavy Machine Gun Browning M2 HB and 35L-89, Set of 2 German Spare 2cm 1/65 Flak 38 Gun Barrels with Storage Box. The barrel sets are fantastic, as you would expect. Don't pass up those windshield wipers if you are a softskin fan.

Website: <http://aber.net.pl/>



Academy

Academy recently dished out a surprise with 13229, German King Tiger "Last Production." Model Rectifier Corporation sent us a copy, so we took a peek in the box. This kit features a sophisticated suspension with link and length rail transport tracks, a flat panel lower hull, photo-etch engine deck screens, two figures and two markings options.

Websites: www.modelrectifier.com (U.S. importer) and www.academy.co.kr



AC Models

It's resin figure thunder from down under. Andrew Cairns has been building up his line quite a bit lately with a variety of scales and subjects. He has a unique sculpting style that we like and hope you will too.



Here's the list of new figures: ACM75001, German Zundapp Pair Suitable for a 1:24 Motorcycle is; ACM75002, LRDG Conversion set for Hasegawa Jeep (with two crewmen); ACM15001, 1:12 New Zealander .30 Cal. Gunner Italian Campaign, WW2; ACM15002, German MG 34 Gunner; ACM16008, Modern Brit (New SA80 with Quad Rail); ACM12B09, 1:12 Scale Modern Brit, Afghanistan Bust with SA80; ACM12B10, 1:12 Scale Marine Commando Bust; ACM12B11, German Officer in Tarn Jacke and ACM10B28, Bren Gunner Bust WW2 Asia/Pacific.

Website: www.acmodels.co.nz



AFV Club

Anything from AFV Club gets us jazzed up. Our favorite since the last time we talked is 35109, M109A2 Howitzer.

Other hot kits on this list are the Bofors guns: 35163, Bofors 40mm Automatic Gun M1 and 35187, Bofors Anti-aircraft Gun British Version. We built both of them and are still waiting for the dizzy spells to subside. The ammo set for these is AG35040, 40mm Ammo Set.



British/Commonwealth fans will find love with their new Dorchester kit: 35227, AEC "Dorchester" Armoured Command Vehicle. Yes, it has a full interior.

There were also two new Dusters: 35192, M42A1 Duster (Early Type) and 35S66,



German Flakpanzer M42A1 Duster and two new 8-rads: 35232, Sd.Kfz. 232 8 Rad. (Early Version) and 35263, Panzerfunkwagen Sd.Kfz. 263 8-rad.

The other tasty stuff that we were privy to for this issue is: 35144, T-34/76 1942/43 Factory 183 Full Interior Kit; 35149,

Flavirling 38; 35170, Bussing Nag L4500S; 35199, Valentine Mk. IV Soviet Red Army; 35226, Track Link for U.S. Water Buffalo, LVT (Workable); 35246, U.S. M2HB .50 Cal Machine Gun set W/M3 tripod & M63 Anti-Aircraft Mount; 35S25, Tiger I (Transport Mode); 35S52, Churchill Mk VI/ 75mm Gun and 35S67, ROC Marine AAVP-7A1. The AAVP-7A1 is actually a Hobby Boss re-box. We liked it.

Website: www.merit-intl.com (U.S. Importer)



AK Interactive

AK Interactive provided us with a bounty of good news. The absolutely most exciting thing going on there is FAQ II. This is a sequel to Mig Jimenez' seminal book that changed the way everyone finishes their armor models.

Another publication that caught our eye was AK-403, 1945 German Colors, Camouflage Profile Guide that is a compliment to their paint set: AK-554, 1945 German Late War Colors Set.

Some of the other paint sets you should keep an eye out for are AK-091, Interior Weathering Set and AK-551, Rust Effect Colors. We used the Rust Effect set for a recent project and were happy with the results.

Here are some of the individual finishing products: AK-065, Afrika Korps Filter; AK-071,

Blue For Panzer Grey Filter; AK-076, Filter For NATO Tanks; AK-092, RAL 9001 Cremeweiss; AK-093, Interior Wash; AK-094, Streaking Grime For Interiors; AK-174, Brass Photo-etch Burnishing and AK-712, Acrylic Thinner.

These guys aren't just doing paints, weathering effects and books either. They have a selection of German Dry Transfers (AK105-112), German Disc Camouflage (AK-157-158) and some nice lenses (AK-200-228). They sent us a selection of the lenses and they came in handy for recent projects. There was a bunch of other stuff on the websites too like t-shirts and naval subject weathering products but we are simply out of

room, so make sure to check them out on the web.

Websites: www.ak-interactive-usa.com
www.ak-interactive.com



Alpine Miniatures

Alpine has been very busy adding to their line of superbly sculpted and cast figures. The 1:35 scale releases since last time are: 35139, WSS Panzer Commander #1 and 35140, WSS Panzer Commander #2 with 35141, WSS Panzer Commander Set for both; 35142, German Motorcycle Driver and 35143, German Motorcycle Trooper with 35144, German Motorcyclist Set for both; 35145, WSS AFV Crew Leanning and 35146, WSS AFV Crew with Pistol with 35147, WSS AFV Crew Set for both; 35148, Otto Carius sPzAbt 502 and 35149, NCO sPzAbt 502 with 35150, Otto Carius & NCO Set for both; 35151, WSS Grenadier and 35152, WSS Grenadier NCO with 35153, WSS Grenadier Set for both; 35154, 3rd Armored Division "Spearhead" #1 and 35155, 3rd Armored Division



"Spearhead" #2 with 35156, 3rd Armored Div. "Spearhead" Set for both. We like the little Germans a lot but the U.S. Tankers were the niftiest.

Alpine has been dishing out lotsa noggins too: H005, WSS Panzer Heads Set #1 (1:35); H006, WSS Panzer Heads Set #2 (1:35); H007, Modern US Infantry Heads; H008, Modern US Tanker Heads; H6001, German Heads Set #1 (1:16); H6002, German Heads Set #2 (1:16); H6003 German Heads #3 (1:16) and H6004 German Heads #4.

We saved the best for last. The all-new 1:16 scale full figures are as follows: 16017, Deutsche Afrika Korps Grenadier; 16018, "The Charge" USMC 1943/44; 16019, German Fallschirmjäger and 16020, WSS MG Ammo Carrier.

Website: www.alpineminiatures.com

Archer

It's a healthy list from markings masters Archer: 35364B, Storefront Signage For German Buildings; 35364W, Storefront Signage For German Buildings; 35365B, Storefront Signage For French and Belgian Buildings; 35365W, Storefront Signage for French and Belgian Buildings; 35366B, Storefront Signage for Dutch and Belgian Buildings; 35366W, Storefront Signage for Dutch and Belgian Buildings; 35367, Opel Blitz Instruments and Placards; 35368, U.S. WWII Victory Posters; 35369, German Propaganda Posters 3; 35370, Italian Propaganda Posters



35371, M.B. 170V instruments and Placards (Master Box); 35372, M.B. 170V instruments and Placards (Mini Art); 35373, M.B. G4 instruments and Placards (ICM); 35374, Iraq Flags;

35375, North Korean Flag; 35376, Citroen Instruments and 35377, Simca and Bussing Nag Instruments. These are the dry transfers.

The new decals are 77022, German 88mm Ammo Stencil Decals and 77023, German 75mm Ammo Stencil Decals.

Detail nuts and scratch builders will be well served by going to their website and checking out their wide range of Rivets and Micro Weld Beads 88 series rivets. As usual, we can't say enough good things about Archer. We use their markings on our projects whenever we can.

Website: www.archertransfers.com

Bravo 6

Bravo 6 keeps doing what they do best with the Vietnam War figures.

The combination of great sculpting and outstanding action poses along with unparalleled attention to detail

never fails to impress us. Oh, and they have been pretty busy too: 35016, Vietcong Fighters (4-5) Local Forces; 35039, USMC (11) Fire in the Hole! Tet '68; 35044, MACV-SOG (2); 35045, Top

Secret! MACV-SOG (3); 35048, U.S. Boonie Hats (10 pcs.) and E-Tools (3 pcs.); 35050, U.S. Army Inf. (1) Rumble In Jungle - Let's Go Get 'Em!; 35051, U.S. Army inf. (2) "Greedy Pig"; 35200, "Un Mauvais Pressentiment", DBP'54 and 35203, "Hugette" Agony (3) French Para DBP '54.

Website: <http://bravo6.diorama.ru/>



Black Dog

You can feel the resin love oozing out of Black Dog every time they announce new releases. These fellas have been amazingly prolific in 1:35 scale. Their monster accessory list looks like this: T35082, British Modern Equipment Accessories Set; T35083, British Cruiser Mk II Accessories Set (Bronco); T35084, Israeli Modern Equipment Accessories Set; T35085, LVT A4 Accessories Set; T35087, Pz. Kpfw. IV Ausf J Accessories Set (Dragon) and T35088, British Bishop Accessories Set (Bronco).

Here is the 1:35 figure list: F35060, US Team RSOV 3 fig; F35061, US Team RSOV 4 fig; F35062, US Woman Soldier Figures; F35063, War Journalist Figures;



F35064, US Woman Soldier - War Journalist Figures; F35065, Israel Army Tank Crew No.1; F35066, Israel Army Tank Crew No.2; F35067, Israel Army Tank Crew Set; F35068, Israel Army Soldier No.1; F35069, Israel Army Soldier No.2; F35070, Israel Army Soldiers Set; F35071, Israeli Soldier Patrol No.1; F35072, Israeli Soldier Patrol No.2; F35073, Israeli Soldiers Patrol Set and F35074, Israeli Soldiers Patrol Big Set.

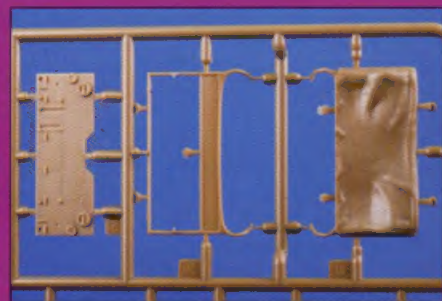
Black Dog also has some interesting photo-etch accessories and diorama bases, too. Plus they keep plugging away in 1:72 and 1:48 scale.

We ran out of room here so make sure to give their web page a look.

Website: <http://blackdog.cz/>

Bronco

Bronco's list is very long. Let's talk about the standout releases first. They have two incarnations of their Jeep kit: CB35106, US GPW 1/4ton 4x4 Utility Truck (Mod.1942) w/10-cwt Trailer & Airborne Crew and CB35107, U.S. GPW 1/4 Ton 4X4 Utility Vehicle (Mod. 1942) w/ 37mm Anti-Tank Gun M3A1. These put every other rendition on the market in the shade.



Let's not forget about that new monster sub kit: CB35104, German U-XXIII Coastal Submarine. More unique German flavor can be found with their new glider: CB35039, German Invasion Glider DFS B-1 w Paratroopers (Operation Eiche).

Fans of allied armor have been waiting a long time for the M22 Locust Light tank and now they

have two: CB35161, M22 Locust (T9E1) Airborne Tank (British Version) and CB35162, US M22 "Locust" Airborne Tank (T9E1).

CB35085 British Humber Armoured Car Mk.II looked really interesting when our sample showed up. British/ Commonwealth enthusiasts will be kept busy for a while by this kit.

Here is a list of the other new items: AB3557, WWII Hungarian 20L Jerry Can & 200L Fuel Drum Set; AB3558, WWII US Light Weapons & Equipment Set; AB3560, Russian 650mm OMSH Track Link Set for KV-1/KV-2; CB35062, Versuchsflakwagen 8.8cm Flak auf Sonderfahrgestell (Pz.Sfl.IVc); CB35065, Pz.kpfw.35(t) in conjunction with SKP; CB35072, M-24 'Chaffee' (Post-War Version) Service In Asian Army Force; CB35097 Panzerjaeger II fuer 7.62cm Pak 36 (Sd.Kfz.132 'Marder II D'); CB35109, Russian Self-Propelled Su-152 (KV-14) (September 1943 Production); CB35110, Russian Heavy Tank KV-85; CB35113, Russian Self-Propelled Gun SU-152 (KV-14) Early Production; CB35114, German 88mm L71 FlaK 41 Anti-Aircraft Gun w/Sd.Ah.202 Trailer; CB35124, 8-Rad Panzerfunkwagen Sd.kfz.263 (Mod.1939); CB35127, Schwere Panzerspae-hwagen (7.5cm) Sd.Kfz.233 (Mod.1942); CB35135, "Pheasant" 17/25 Pdr. Anti-Gun Crew Set (Tunisia, Sicily & Italy); CB35136, M1114 Up-Armoured Vehicle w/XM153 CROWS II;

CB35139, US M-24 Chaffee Light Tank in Korean War; CB35140, WWII British & Commonwealth War Correspondent Set; CB35143, Panzerkampfwagen I Ausf.F (VK 18.01); CB35156, DAK "Topolino" (German/ Italian) Light Staff Car w/ Crew & IF8 Infantry Cart and CB35159, WWII U.S. Truck Crew Set.

You can blink now.

We noticed two nice things about Bronco lately.



The newer figure kits, especially the British 25 Pdr. Crew, are a real leap forward from some of their earlier efforts. Also, their artillery kits may look intimidating but we just finished the Vietnam version of their 155mm Howitzer and were very satisfied.

Websites: www.dragonusaonline.com (U.S. Importer) and www.bronco-model.com

Chilli Pepper Films

We received a copy of the History of Russian Tanks DVD from it's creator, Clive Simmonds of Chilli Pepper Films (www.chillipepperfilms.com). This DVD clocks in at 2 hours 22 minutes and covers the entire timeline of Russian tank development up to the present day. As a survey documentary, it covers the bases pretty well. There is, of course, a lot of time spent on the T34. In fact, both Brian and Jeff agreed that their favorite parts were watching the fully restored T34/85 featured being put through its paces and the footage about the owners looking for spare parts. Watching this movie really got us fired up to build some Russki armor. We also think this is a great video to have on in the background when you are building. The best places to pick this video up are www.amaon.com and www.united-states-flag.com



Desert Eagle Publishing

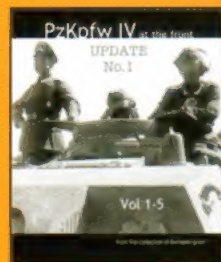
Desert Eagle specializes in reference on modern Israeli armor and they have the best books around when it comes to that subject. IDG Armor Series No.5, Merkava Siman 3D is their most recent title. It is a perfect companion to the Meng Models or Hobby Boss kits. We give you a more complete profile in this issue's book reviews section just a few short pages away.

Website: <http://www.deserteagle-publishing.com>



Eight Wheels Good

Craig Ellis has released another print on-demand volume on the Panzer IV called **PzKpfw IV at the front UPDATE No.1**. Panzer IV fans should really check this one out, as the first four books in the series were superb. Go to www.blurb.co.uk/ on the web and type the title into the search engine on the home page and you'll find a really nice 42-page preview.



Dragon

Dragon has their usual avalanche of great kits. The best of the bunch was 6767, Imperial Japanese Navy Type 95 'Ha-Go' Light Tank Early Production. Go get this one today even if you are not into Japanese armor. This kit put the smart back in "Smart Kit" and is a truly superior model.

There were also some other subjects from the Pacific theater that caught our eye: 6554, U.S. Marines, Peleliu 1944; 6555, IJA Infantry Peleliu 1944 and 6712, IJN Type 2 (Ka-Mi) Amphibious Tank w/Floating Pontoons (Late Prod.).



There were a few allied WWII releases too: 6573, Sherman III DV Early Production; 6738, French Infantry Sedan 1940; 6748, Armored 1/4 Ton 4x4 Truck w/Bazooka; 6744, Soviet Infantry Winter 1941; 6760, Sexton II 25pdr SP Tracked; 6750, T-28 Super Heavy Tank; 6724, SAS 1/4 Ton 4x4 Patrol Commander's Car and 6774, British 25pdr Field Gun Mk.II w/Limber.

The rest is an eye-numbing litany of panzer madness: 6423, Sd.Kfz.131 Panzerjäger II für PaK 40/2 "Marder II"; 6435, Pz.38(t) Ausf.S & Fuel Drum Trailer; 6480, Pz.Kpfw.I Ausf.B Ladungsleger; 6543, Pz.Kpfw.III Ausf.J (Tp) Early Production; 6550, Flakpanzer IV "Ostwind"; 6565, Flakpanzer IV Ausf. G "Wirbelwind" Early Production w/Zimmerit; 6582, Sd.Kfz.167 StuG.IV Mid Production; 6591, Leichte (Funk) Pz.Kpfw.I Ausf. A; 6593, StuG.III Ausf.G, Dec 1944 Production; 6611, Pz.Kpfw.IV Ausf.H Mid-Production w/Zimmerit; 6633, StuG.III Ausf.G w/Zimmerit, July 1944, Late Production; 6639, Pz.Kpfw.III (5cm) Ausf.G, Sd.Kfz.141, Early Production; 6643, Leibstan-



darte Waffen SS, Kleisoura Pass 1941; 6689, Pz.Kpfw.IV L/70(A); 6691, RSO/01 Type 470; 6705, German Winter Combatants 1943-45; 6706, Das Reich Division, Eastern Front 1942-43; 6707, German Elite Infantry Russia 1941-43; 6723, Rommel and His Staff, North Africa 1942; 6731, Sd.Kfz.10 Ausf.B 1942 Production; 6742, Gebirgsjäger's Crete 1941; 6743, German Brandenburg Troops, Leros 1943; 6747, Pz.Kpfw.IV Ausf.A; 6749, 15cm Sturm-Infanteriegeschütz 33; 6761, German Half-Track

Hobby editions. Orange Box output included: 9138, SA-9 Gaskin + Motor Rifle Troops; 9139, T-34/85M + NVA Sapper Team; 9140, German V-2 Rocket + Communications Center; 9141, M1A1 w/Mine Plough "Desert Storm" + 1st Infantry Division Big Red One Figure Set; 9142, Tiger I Early Production (Pz.Kpfw. VI Ausf. E, Sd.Kfz. 181) LAH Div., Eastern Front 1943; 9143, Stug. III Ausf. A "Michael Wittmann" + Panzermeyer LAH Division and 9144, Sd.Kfz.182 King Tiger Henschel Turret + "Ambush at Poteau" (Orange). Cyber Hobby's list was a little shorter and all German: CY6720, 5cm Pak 38 auf Sd.Kfz.250 Ausf.B; CY6765, Sd.Kfz.141 Pz.Kpfw.III (3.7cm) (T) Ausf.G and CY6768, Sd.Kfz.3a Maultier Half Track mit 3.7cm Flak 37.

There were some really interesting 1:6 scale and 1:72 releases out since our last update too and we encourage you to browse at the Dragon USA website.

Websites: www.dragon-models.com and www.dragonusaonline.com



Truck "Maultier;" 6764 Pz.Kpfw.IV Ausf.B mit Geländepflug and 6772, Sd.Kfz.234/4 Panzerspahwagen - Premium Edition.

Last but not least are the Orange Box and Cyber



Fine Molds

The fine folks at fine molds have a few new things out. MG-75, Replacement Tank Gun Barrel for Type 89 Medium Tank is pretty self-explanatory. FM-37, Imperial Japanese Army Infantry Set is the real standout release. This set comes to make six fully equipped Japanese grunts on the march with all the infantry



equipment you'll ever need.

41102, Type 3 Medium Tank "Chi-Nu" - "Girls und Panzer" is rather unique. It is their venerable Type 3 kit with anime decals- something we have also seen from Dragon.



Websites: www.dragonusaonline.com and www.hlj.com

K59

If you need a 7.92mm anti-aircraft machine gun for your panzer, K59 now makes two little sets that are probably the most detailed offers on the market for this. Z-07, German MG-34 Fliegerbeschussgerät is the cupola mount seen on the Panzer IV, Panther, Tiger and King Tiger. Z-08, German MG-34 Panzerlauf is the mount and a super-detailed machine gun in one set.

You can take a closer look at the items by going to www.1120production.blogspot.com and you can order them at K59's online shop: www.etsy.com/shop/k59production



Hauler

Hauler has recently morphed into Hauler/Brengun. The Hauler side that we know and love is still busy churning out ground vehicle items while Brengun concentrates on aircraft. Hauler has continued to stick to their 1:48 scale roots while also expanding into other scales. Here are the quarter scale items: HLS48014, Tatra T-141 Heavy Tractor; HLX48323, T17E1 Staghound



Mk.I (Bronco); HLX48324, JS-2 PE parts for (Tamiya); HLX48325, Sd.Kfz.10 Demag D7 (Blue Cat); HLX48326, JS-2 Engine Grills (Tamiya); HLX48327, Matilda (Tamiya); HLX48328, 2cm Flak 30 (ACE); HLX48329, BA-10 Armored Vehicle (UMM); HLX48330, JS-2 Stand-off Armour (Tamiya); HLX48331, IS-2 Engine Mesh (Tamiya); HLX48332, Flak 38 2cm (ACE); HLX48333, Flakpanzer IV Mobelwagen (w/Flak43) (Tamiya); HLX48334, Sd.Kfz.234 PUMA Wheels (Tamiya/ Italeri) and HLX48335, Land Rover Snatch Grills/ Mesh (Airfix).

They also had a pretty healthy list for 1:35 scale: HLU35054, T17E1 Staghound Mk.I (Bronco); HLU35055, Gaz-MM (Miniart); HLU35056, T17E1 Staghound Mk.I w.60LB Rocket Launcher (Bronco); HLU35057, GAZ-AAA 1943 (Mini Art); HLU35058, IS-2 (Tamiya); HLU35059, IS-2 Grills (Tamiya); HLU35060, IS-2 Engine Mesh (Tamiya);

HLU35061, JS-2 Stand-off Armour (Tamiya) and HLU35062, Simca 5 (Tamiya). We also saw some items in other scales and advise that you take a look on their website next time you are up late surfing.

Website: www.hauler.cz



Hobby Boss

Hobby Boss has really grabbed our attention with their diversity. They just seem to release whatever they want. They are also very prolific lately: 82601, Pz.Kpfw. VI Tiger I; 82913, WR360 C12 Locomotive 1:72 Scale; 85803, UH-1C Huey Helicopter; 82441, IDF Merkava Mk.III; 82447, Land Rover WMIK w Milan ATGM; 82450,

(Ranger Special Operations Vehicle) RSOV w/MG; 82457, Israeli Merkava ARV; 82468, Dong Feng Meng Shi 1.5 ton Military Light Utility Vehicle Hardtop Version A; 82473, PLA ZSD90 APC; 82476, IDF Merkava Mk. III (LIC); 82478, Hungarian Light Tank 38M Toldi II (B40); 82484, PLA ZTD-05 AAV; 82486, PLA ZBL-09 Snow Leopard IFV; 82490, EBR-11

Wheeled Reconnaissance Vehicle; 82492, German Panther Ausf.D Flak Bergepanther; 82493, T-24 Medium Tank; 82494, Soviet T-26 Light Infantry Tank Mod.1931 and 82496, Soviet T-26 Light Infantry Tank Mod. 1935.

Websites: www.hobbyboss.com and www.squadron.com (U.S. Importer)



Hussar

Hussar has long been known for making the best resin wheels in the business. Their latest releases have a decidedly German flavor: HSR 35081, Ford V3000 Wheels; HSR 35082, Ford V3000 Maultier Wheels; HSR 35102, Einheitsdiesel Type 1 Wheels; HSR 35103, Einheitsdiesel Type 2 Wheels and HSR 35104, Einheitsdiesel Type 3 Wheels.

Website: www.airconnection.on.ca

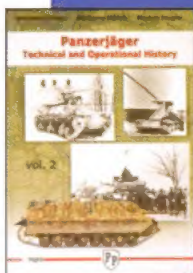
JJ Fedorowicz Publishing, Inc.

Mr. Fedorowicz has been a friend to Amersand for a long time and we were more than happy to spread the word that not only does he have some great hard cover books under his own label but he is also carrying titles from Trojca now. He sent us some sample titles recently. From the Fedorowicz line there was Sturmgeschutz Abteilung/Brigade 210 and Totenkopf Tigers.

From the Trojca line we received copies of *Technical and Operational History Tiger, Vol. 1 1942 - 1943*; *Tiger: Operational and Technical History 1944-1945 Vol. 2*; *Panzerjäger, Technical and Operational History, Vol. 1* and *Panzerjäger, Technical and Operational History, Vol. 2*. All of these titles carry a hefty price tag, but are well worth the money.

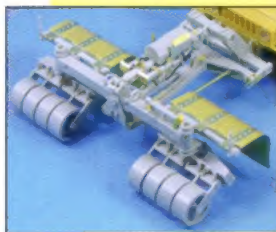
For more information, see the full-page ad elsewhere in this issue.

Website: www.jjpub.mb.ca



Legend

Legend from Korea has been concentrating on modern armor from the U.S. and Israel lately to good effect: LF1246, SPARK Mine Roller for Humvee; LF1247, IDF M51 Detailing Set; LF1248, M60 A1/A3 Detailing Set (Tamiya); LF1249, M60 Tank Cupola; LF1250, Merkava 3D Detailing Set;



LF1251, IDF M51 1973 Update Set; LF1252, IDF Tiran 6 Conversion Set and LF0138, US Sniper Team - Camouflaged.

The detailing sets for the M60 are very welcome for

this long neglected but still very popular subject and the M51 set for the new Tamiya release is superb.

Websites: www.legendusa.net and www.legend.co.kr



ICM

More cars, trucks and mini men are served up Russian style by ICM: 35532, G4 (W31) German Personnel Car; 35413, G917T; 35535, Packard Twelve 1936; 35631, WWII Soviet Partisans; 35462, Krupp L3H163 Kfz.72, WWII German Radio Communication Truck; 35482, Soviet Divisional Artillery Horse Transport 1943-1945; 35412, V3000S/SS M Maultier Truck; 35525, L1500A Kfz.70 Personnel Car and 35613, Stalin & Company. The Stalin & Company figure set seems to be the standout here. It includes Stalin, Molotov, Beriya, Krushev and Vlasik.

Websites: www.icm.com.ua and www.squadron.com (U.S. Importer)



Italeri

Italeri has gone into the paint business, folks! They have done so with a vengeance too. A total of 87 acrylic colors are now available and hopefully we will start to see racks pop up at the local hobby shops. Along with the individual 20ml bottles, there are a number of six-color sets. Most of the current sets are aircraft colors, but there are two exceptions: 433, WWII German Army and



440, WWII Military Allied Army.

Italeri has not given up on plastic kits either. They have revised their PT boat kit to make the most famous one of them all: 5613, PT-109 Motor Torpedo Boat. Other new releases from them are of very Italian flavor: 6490, Cannone da 47/32 mod. 39 with Crew; 6492, Italian Paratroopers Combat Group and 6497, 508 CM "Coloniale."

Look for the paratroopers in an upcoming edition of Mini Men.

Websites: www.modelrec.com (U.S. importer) and www.italeri.com



Lion Marc

Our favorite little turned barrel making company has been pretty quiet lately.

We did spot these two items from them: LM10046, 105mm Barrel for Hungarian 40/43M Zrinyi II (Bronco) and LM10045,



15mm & 7.92mm BESA Barrels for British Light Tank MK VI C. The online shop for Lion Marc is actually pretty diverse and carries a number of lines that are otherwise pretty tough to find such as Decal Star, Passion Models and RB Model so it is well worth it to stop by there once in a while.

Website: www.lionmarc.com

Meng

Leave it to Meng to come up with something completely unexpected. The release of TS-003, AMX-30B MBT took everyone completely by surprise since the only version of the AMX-30 available until now was that old Heller kit. Well, they didn't stop there with the chassis, no sir! TS-004, AUF1 155mm Self-propelled Howitzer is the French 155 mounted on the AMX30 chassis.

And to the delight of construction equipment enthusiasts everywhere, they are on line to produce a styrene kit of the D9R Doobi Armored Bulldozer.



Another variation on their Merkava kit is: TS-005, Merkava Mk.3 Baz w/ Nochri Dalet Mine roller System. Meng has also tried their hand at figures lately, releasing the very relevant HS-001, Middle Easterners.

Website: www.meng-model.com

Lion Roar/ Great Wall

Although we have not heard much from the Great Wall portion of this company, Lion Roar has released a very diverse selection of superb looking photo-etch detail sets lately: LAS35022, M1114 Up-Armored HA Tactical Vehicle Super Detail Conversion Set (Bronco); LAS35023, JDSDF Type 99 155mm Self-Propelled Howitzer Super Detail Conversion Set (Trumpeter/



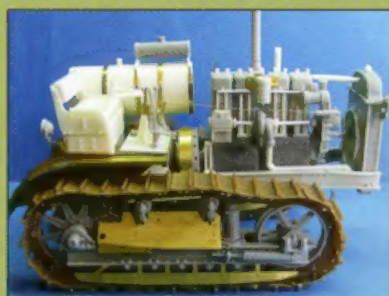
Pit Road); LAS35018, US Light Tank M-24 Chaffee; LAS35019, "BUFFALO" 6x6 MPCV (Bronco); LNRIAS35020, 1/35 JGSDF Type 87 Self-propelled Anti-Aircraft Gun Super Detail Conversion Set (Pit Road) \$39.95 and LNRIAS35021, U.S. Army HUMVEE M1025, Super Detail Conversion Set.

Website: www.dragonusaonline.com (U.S. Importer)

LZ Models/ Mirror Models

We have been getting a lot of updates from LZ Models. All of the news is very good. Perhaps the best news (especially for British/ Commonwealth and softskin fans) is the advent of Mirror Models. Mirror Models manufactures styrene injection kits while the LZ label is still being used for the resin items.

Both companies have been very prolific and we highly recommend going to their web page to take a closer look if any of these items strikes your fancy. Here is the new stuff from LZ: 35103, GM Mk I Otter; 35308, German Couplings for all German Wagons; 35409, Russian S-60 Stalinetz Conversion Kit (Trumpeter); 35411, Italian 20mm Breda Gun Mod.39; 35412, CMP German DAK Ford F15 with 20mm Flak 30; 35413, German Flak 30 Gun; 35414, Detail Set for C15TA Armoured Carrier; 35415, 9x16 Wheel Set for CMP and British Vehicles; 35416, 10.5x16 Wheel Set for CMP and British Vehicles; 35900, German



Locomotive Conductor; 35901, German Locomotive Coaling Man; 35902, Civilian Worker; 35408, Gas Equipment Set for Russian S-65 Stalinetz; 35507, US Caterpillar Sixty Conversion Kit; 35425, C15 2X4 Chevrolet Conversion Set; 35426, Bren Light Machine Gun; 35427, Shield for GM Mk I Otter; 35431, C15A Water Tank Lorry Cab 13; 35432, Chevy Van Lorry Cab 13 and 35433, C15 Chevy Van Lorry Cab 11+12.

The injection molded kits released thus far under the Mirror Models label are: 35100, CMP C15TA Armored Car; 35101, CMP C15A Chevrolet with Cab 11 and 12; 35102, CMP C15A Chevrolet Cab 13; 35103, CMP Mk I Otter Recce Car; 35106, CMP C15TA Armored Ambulance; 35105, CMP F15 Ford Truck; 35121, CMP Heavy Utility and 35200, Russian Artillery Tractor T20 Komsomolets.

Website: www.lzmodels.wbs.cz and www.mirror-models.com



Live Resin

Live Resin's latest is a trio of super-detailed grunts: LRM-35001, US Army Modern Soldier; LRM-35002, US Army Modern Soldier and LRM-35003, US Army Modern Soldier. All we can say is wow.

down favorites. We built up a couple of them. The parts count is high and some of pieces are very delicate. There were some small mismatches on parts, but not in places that you will notice when the gun is assembled. We were stunned by the end



We recently received a healthy assortment of samples from Live Resin and decided that it was high time for a photo report. The first thing we broke open was the sample for the M249 Squad Automatic Weapon (LRE 35086). This item could be best described as a mini kit and the fidelity was unparalleled. There are also versions of the M240 medium machine gun and the MAG 58 version along with extra ammo belts.

Live resin has a pretty nice selection of

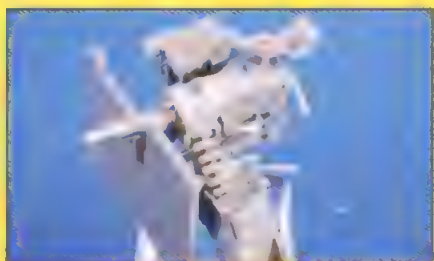


result and seriously questioned whether there was actually a vehicle kit worthy of mounting them. There are two different versions available, the Mk. 19 and the Mk. 47. They both have a mind-boggling array of options for each version and each comes in a different kits ranging from LRE 35069 to 35079 and the separate ammunition packs are LRE 35080-35084.

Website: <http://live-resin.com>

modern U.S. small arms. The rifle sets such as LRE35033, US Army M16A4 MWS Automatic rifle with M203A1 40mm Grenade Launcher come with a variety of accessories and several rifle sets come with separate magazines. The PAGST helmet kits (LRE 35040-44) are also available with a wide variety of attachments.

The grenade launcher kits were our hands-



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Master Box

Master Box has been making good on it's promises and then some. It used to be that they had a long list of future releases. Nowadays they just throw 'em out there and see what happens.

Before we get to the figures, give some thought to these two softskin kits: 3530, Sd.Kfz.1, Type 170 VK, German Military Staff Car and 3531, Sd.Kfz.2, Type 170VK German Military Radio



Car. 35112, "Where Are The Damned Roads?" is a nice complete package for a vignette featuring a VK170 and some figures to go with it. We got samples of both types of VK170 from our buddies at Dragon USA. These kits have complete power trains and lots of nice little touches some other companies are skipping on like door and window handles and rifle racks.

3550, "8th Pennsylvania Cavalry Regiment"-U.S. Civil War Series leads off for figure releases. No, it's not a mechanized era topic but the animation for the horses caught our eye. 35107, "Head for the Huey" Vietnam War was also an attention getter.

The rest of the releases were all WWII themes: 3568, "Soviet Tank Crew" 1943-1945; 3577, "U.S. Artillery Crew;" 3582, "Auto-Repair Crew;" 3597, "Vickers Machine Gun Team", Desert Battle Series; 35108, "The Generals of WWII;" 35115, German Infantry Weapons, WWII Era; 35148, "Women of WW II;" 35149, "Ger-

man Tankers". A Break Between Battles; 35150, "Friendly Boxing Match" British and American Paratroopers; 35151, "Urgent Dispatch and 35155, "Dogs in Service in the Marine Corps, WWII Era." Pat was pretty enthusiastic about the boxing match figures in 35150.

Websites: www.mbltd.info and www.dragonusaonline.com (U.S. Importer)



MK35

MK 35 put out some Ranger figures recently that we really liked because of the



at 1:35 scale. F228, Ranger of the 2nd Battalion - Normandy 1944; F222, Ranger of the 2nd Battalion - Desert, Normandy 1944; F223, Ranger of the 2nd Battalion - In Action - Normandy 1944; and F224, Ranger of the 2nd Battalion - In Action - Normandy 1944.

The other 1:35 figures were a German and two civilians.

F015, Grenadier 21st Panzer Division Normandy 1944 (reissue); F226, WWII Postman With His Bike and F227, French Woman During Occupation.

MK35 has also been making figures in 1:43 scale lately and we encourage you to go by their website if you are interested.

Website: www.mk35.com

Mini Art

The U.S. importer for Mini Art, Model Rectifier Corporation (MRC), has been keeping us well informed about the latest and greatest from this burgeoning styrene giant. Here is a healthy dose of 1:35 scale figures and vehicles with something for everyone: 35089, U.S. 101st Airborne Division (Normandy 1944); 35103, MB-TYPE 170V Cabrio Saloon; 35128, Japanese Tank Crew; 35132, German Tank Crew (Normandy 1944);



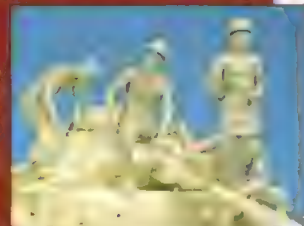
35133, GAZ-AA Mod.1943 Cargo Truck; 35137, Pushing Soviet Soldiers; 35135, Close Combat U.S. Tank Crew; 35140, Ya-12 Soviet Artillery Tractor; 35141, German Tank Crew "Afrika Korps;" 35142, L1500S GERMAN L51 4X2 Cargo Truck; 35143, SU-76M Soviet Self-Propelled Gun w/Crew; 35146, Workable Track

Link Set for T-70; 35147, L1500A Kfz.70 German Personnel Car; 35148, Market Garden Netherlands 1944; 35151, U.S. Horsemen; 35153, Soviet Tank Crew at Work and 35157, Hungarian Tank Crew. We will be sure to give you a closer look at some of those figure sets as MRC has bombarded us with samples lately.

Mini Art is also damn good at turning out the diorama accessories. In 1:35 scale, the new items are: 35541a, Telegraph Poles; 35557, Workshop; 36024, Ardennes Street; 36026, Norman Street; 36050, French Village Street; 36051, Diorama w/ Park Wall and 36052, Street Section w/ Wall.

Now normally we wouldn't blink at 1:72 scale diorama buildings but lately Mini Art has been pumping out some real gems in multi-colored plastic: 72015, Railway Station; 72019, City Building; 72021, Administrative Building with Workshop; 72022, Workshop; 72023, Goods Shed; 72024, Village House and 72025, Watchtower. These would go perfectly with some 1:72 Dragon armor to make a large diorama.

Websites: <http://www.miniart-models.com/> and www.modelrec.com (U.S. Importer)



Miniman Factory

The truck-meisters over at Miniman Factory have pulled a fast one. They actually released a tracked vehicle! 35021, PTM Russian Tracked Amphibious Truck will leave you short of breath and short of cash. This is a full resin kit with a detailed cab, workable features and Fruilmodel tracks.

Another recent development is 35035, KRAZ-



255 Gun Truck. This is a variant on their redoubtable KRAZ kit with a D-30 12mm howitzer mounted in the back.

Website: www.minimanfactory.com



MR Modelbau

Matthias Roth got back in touch with us very recently and we were very glad of it. He sent us a little care package with the following items: 35371, Welded Front Section ISU-152 & ISU-122 (Tamiya); 35376, VK3001(H) (Trumpeter); 35379, Wheel Set Ford V30008 (ICM); 35384, Finkeitskegel (IBG); 35385, Mercedes 1500 (Zvenda); 35387, Sd.Kfz. 6 Update (Trumpeter); 35388, Tauchpanzer II (Dragon); 35392, Kfz-26 Flame Tank (Hobby Boss); 35396, Road Wheels Ford Maultier Late Domed Type with 4 Holes (ICM); 35397, Front Wheels Ford Maultier (ICM); 35398, Stowage for Type 89 Otan (Fine Models); 35404, BT-7M Update & Stowage (Tamiya); 35405, Henschel 83 D1 (ICM) and 35408, Late Road Wheels T-26 (Hobby Boss).

We pored over the samples and really liked the casting quality. Stopping by the MR website will reveal much more than we have room for

here, especially when it comes to replacement wheel sets and minor conversion kits. MR Modelbau products have traditionally been pretty hard to find in the U.S. the latest news on that score is that Wimmerauer Games & Hobbies will be importing this line.

Website: www.mrmodelbau.com and www.wimmerauegames.com



Nuts & Bolts

Ready for the ultimate reference for the new Dragon RSO? Try out the all new Nuts & Bolts Vol. Raupenschlepper Ost "RSO" that gives you the best reference available yet on the cargo carrying version of this strangely lovable vehicle. If you want a definitive reference on the RSO armed with the PAK 40, check out Nuts & Bolts Vol. 9.

Just in time for the Hobby Boss kit is a release of Volume 05: Mittlerer Gepanzerter Beobachtungskraftwagen Saurer RK-7 (Sd.Kfz. 254). This is not just a standard re-print. It includes new photos and drawings. We will take a closer look at these in the next Hook Reviews section.

Website: www.nuts-bolts.de and www.dragonusaonline.com



Perfect Scale Modelbau

Perfect Scale is the absolute best place on earth to go looking for those little extras for your Leopard 1 and 2 kits. Lately, they have been going after the older Italeri Revell Leopard 1 kit with a vengeance. 35106, Leopard 1 "Early Batches" (Italeri/Revell) was the most eye-catching release. This conversion kit backdates the plastic kit to the very early production batches with new tracks, wheels, turret, fenders and hull details.

Some of these items are also available separately: 35107, Leopard 1 Cast Turret; 35108, Leopard 1 L7 Gun Barrel/ Non Thermal Sleeve; 35109, Leopard 1 D139 E2 Single Link Tracks and PE005, Leopard 1 Tool Clamps. If you are looking for an accurate Leopard cast turret with appliqué armor, look no further: 35111, Leopard 1 A1A1 Turret and 35112 Leopard 1A5 Turret just showed up. The PZB200



LLTV system is also available separately as 35113, PZB 200. Simply put, if you are looking to detail a Leopard 1, comb through their website and you will be very pleased. You can also get an engine details in three different packages: 35104, Leopard 1 Powerpack and 35105, Leopard 1 Engine Compartment are the two sold separately while

35025, Leopard 1 Powerpack & Engine Compartment is the whole shebang.

If you are a fan of recovery vehicles, a Leopard 1 ARV may be in your future. Perfect Scale has two versions: 35102, Leopard 1 ARV A2 / with Interior

and 35103, Leopard 1 ARV A2.

Humvee fans may also want to check out 35092, USMC HMMVW for the Bronco kit.

Perfect Scale products can be very hard to find in the U.S. and we suggest you order direct.

Website: www.perfect-scale.de

Panzerwrecks

For those who want to see the aftermath of a battle, Panzerwrecks is the place to go. This company specializes in the production of detailed models of destroyed German tanks and vehicles. The models are made from plastic and are painted to look like real war-torn vehicles. They are available in various scales and are a great addition to any collection of German military models.



Reinhardt

Even big updates from Reinhardt. We'll try to break it down to make things easier to read.

Conversions of typically British character available now are: 351219, Matilda Mk.II (Trumpeter); 351220, Panzer II (Trumpeter); 351221, Panzer IV (Trumpeter); 351222, Panzer V (Trumpeter); 351223, Panzer VI (Trumpeter); 351224, Panzer VII (Trumpeter); 351225, Panzer VIII (Trumpeter); 351226, Panzer IX (Trumpeter); 351227, Panzer X (Trumpeter); 351228, Panzer XI (Trumpeter); 351229, Panzer XII (Trumpeter); 351230, Panzer XIII (Trumpeter); 351231, Panzer XIV (Trumpeter); 351232, Panzer XV (Trumpeter); 351233, Panzer XVI (Trumpeter); 351234, Panzer XVII (Trumpeter); 351235, Panzer XVIII (Trumpeter); 351236, Panzer XIX (Trumpeter); 351237, Panzer XX (Trumpeter); 351238, Panzer XXI (Trumpeter); 351239, Panzer XXII (Trumpeter); 351240, Panzer XXIII (Trumpeter); 351241, Panzer XXIV (Trumpeter); 351242, Panzer XXV (Trumpeter); 351243, Panzer XXVI (Trumpeter); 351244, Panzer XXVII (Trumpeter); 351245, Panzer XXVIII (Trumpeter); 351246, Panzer XXIX (Trumpeter); 351247, Panzer XXX (Trumpeter); 351248, Panzer XXXI (Trumpeter); 351249, Panzer XXXII (Trumpeter); 351250, Panzer XXXIII (Trumpeter); 351251, Panzer XXXIV (Trumpeter); 351252, Panzer XXXV (Trumpeter); 351253, Panzer XXXVI (Trumpeter); 351254, Panzer XXXVII (Trumpeter); 351255, Panzer XXXVIII (Trumpeter); 351256, Panzer XXXIX (Trumpeter); 351257, Panzer XL (Trumpeter); 351258, Panzer XLI (Trumpeter); 351259, Panzer XLII (Trumpeter); 351260, Panzer XLIII (Trumpeter); 351261, Panzer XLIV (Trumpeter); 351262, Panzer XLV (Trumpeter); 351263, Panzer XLVI (Trumpeter); 351264, Panzer XLVII (Trumpeter); 351265, Panzer XLVIII (Trumpeter); 351266, Panzer XLIX (Trumpeter); 351267, Panzer L (Trumpeter); 351268, Panzer LI (Trumpeter); 351269, Panzer LII (Trumpeter); 351270, Panzer LIII (Trumpeter); 351271, Panzer LIV (Trumpeter); 351272, Panzer LV (Trumpeter); 351273, Panzer LVI (Trumpeter); 351274, Panzer LVII (Trumpeter); 351275, Panzer LVIII (Trumpeter); 351276, Panzer LIX (Trumpeter); 351277, Panzer LX (Trumpeter); 351278, Panzer LXI (Trumpeter); 351279, Panzer LXII (Trumpeter); 351280, Panzer LXIII (Trumpeter); 351281, Panzer LXIV (Trumpeter); 351282, Panzer LXV (Trumpeter); 351283, Panzer LXVI (Trumpeter); 351284, Panzer LXVII (Trumpeter); 351285, Panzer LXVIII (Trumpeter); 351286, Panzer LXIX (Trumpeter); 351287, Panzer LXX (Trumpeter); 351288, Panzer LXXI (Trumpeter); 351289, Panzer LXXII (Trumpeter); 351290, Panzer LXXIII (Trumpeter); 351291, Panzer LXXIV (Trumpeter); 351292, Panzer LXXV (Trumpeter); 351293, Panzer LXXVI (Trumpeter); 351294, Panzer LXXVII (Trumpeter); 351295, Panzer LXXVIII (Trumpeter); 351296, Panzer LXXIX (Trumpeter); 351297, Panzer LXXX (Trumpeter); 351298, Panzer LXXXI (Trumpeter); 351299, Panzer LXXXII (Trumpeter); 351300, Panzer LXXXIII (Trumpeter); 351301, Panzer LXXXIV (Trumpeter); 351302, Panzer LXXXV (Trumpeter); 351303, Panzer LXXXVI (Trumpeter); 351304, Panzer LXXXVII (Trumpeter); 351305, Panzer LXXXVIII (Trumpeter); 351306, Panzer LXXXIX (Trumpeter); 351307, Panzer LXXXX (Trumpeter); 351308, Panzer LXXXXI (Trumpeter); 351309, Panzer LXXXXII (Trumpeter); 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351467, Panzer LXXXXXXX (Trumpeter); 351468, Panzer LXXXXXXXI (Trumpeter); 351469, Panzer LXXXXXXXII (Trumpeter); 351470, Panzer LXXXXXXXIII (Trumpeter); 351471, Panzer LXXXXXXXIV (Trumpeter); 351472, Panzer LXXXXXXXV (Trumpeter); 351473, Panzer LXXXXXXXVI (Trumpeter); 351474, Panzer LXXXXXXXVII (Trumpeter); 351475, Panzer LXXXXXXXVIII (Trumpeter); 351476, Panzer LXXXXXXXIX (Trumpeter); 351477, Panzer LXXXXXXX (Trumpeter); 351478, Panzer LXXXXXXXI (Trumpeter); 351479, Panzer LXXXXXXXII (Trumpeter); 351480, Panzer LXXXXXXXIII (Trumpeter); 351481, Panzer LXXXXXXXIV (Trumpeter); 351482, Panzer LXXXXXXXV (Trumpeter); 351483, Panzer LXXXXXXXVI (Trumpeter); 351484, Panzer LXXXXXXXVII (Trumpeter); 351485, Panzer LXXXXXXXVIII (Trumpeter); 351486, Panzer LXXXXXXXIX (Trumpeter); 351487, Panzer LXXXXXXX (Trumpeter); 351488, Panzer LXXXXXXXI (Trumpeter); 351489, Panzer LXXXXXXXII (Trumpeter); 351490, Panzer LXXXXXXXIII (Trumpeter); 351491, Panzer LXXXXXXXIV (Trumpeter); 351492, Panzer LXXXXXXXV (Trumpeter); 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Progres Model Centrum

It's yet another unique British/Commonwealth title from Model Centrum: **Armor Color Gallery #10, Camouflage & Markings of the Valentines in New**

Zealand. There wasn't any room in book reviews for this one, so we'll talk about it here. Apparently, New Zealand kept their Valentine tanks in service for a long time- up until 1960. Model Centrum's new book profiles the Valentine's long career in New Zealand from training, through WWII and then into the postwar era. All of the well-captioned photos in the book are very clear and big enough so you can see the fine details. As usual, there are a few pages of excellent color plates at the end. If you are looking for something new to



do with your Valentine, check this title out

Model Centrum has broken away from their usual soft cover format recently with **Special 001, Marmon-Herrington - A History of**

the South African Reconnaissance Car. This is a hardcover reference that has 176 pages with 229 black and white period photos, 141 full color walk around photos, color plates and 1:35 scale line drawings. Both the development and operational history are covered. Apparently, IBG Models from Poland will be coming out with a rendition in 1:35 scale and this will be the book to have. With Model Centrum, we advise that you order direct on the website from wherever you are.

Website: www.modelbooks.republika.pl

Reality In Scale

Reality in scale makes some of the finest 1:35 scale diorama accessories in the world. They are also very prolific, so it is rather hard to keep up with them. Here is the latest update we received: 35215, **Crushed & Dented US Fuel Drums WWII**; 35216, **Tall Egyptian Sekhmet Statue**; 35217, **Large Egyptian Gate**; 35218, **Lying Cow**; 35219, **Lying Skinny Cow with Calf**; 35220, **Large Ruined**



Farmhouse; 35221, **Food Supplies 4**; 35222, **Small Industrial Shed**; 35223, **Ruined North African House**; 35224 **Cats & Dogs**; 35225, **Large Dogs**; 35226 & 35229 **Enamel Signs WWII - Germany Set 1 & 2**; 35227, **Wooden Signs WWII - Germany Set 1**; 35228 **Wooden Signs WWII - Germany Set 2**; 35230, **Egyptian Horus Statue** and 35231, **Egyptian Bastet Statue** are the resin accessories.

Some of these are cast in different colors to make paint coverage easier.

On top of the resin goodies, lets add **TURF01 Super Turf Foliage Set** and **TREE03, Bamboo set 1** to their lineup of terrain and foliage products.

Also very interesting are their new their new wall sections: **WALL01-WALL06**. These are pre-painted, flexible self-adhesive sections.

Last but not least are their **Value Gear Vehicle Stowage Sets** because you can never have too many backpacks, bedrolls and tarps.

Website: www.realityinscale.com

Riich Models

As we previously mentioned in the Resicast section, the Chinese company Riich Models is making an all-new universal carrier: 35011. **Universal Carrier Mk.I w/ Crew**. Many people are hoping this is just the beginning of a long line. They also came out with the British version of the 57mm anti-tank gun from WWII as 35018, **Ordnance QF 6pdr Anti-Tank Gun + Mk.IA Carriage**. As if that wasn't enough, they have also thrown their hat in the German oddball ring with 35005, **Radschlepper Ost**. If you would like

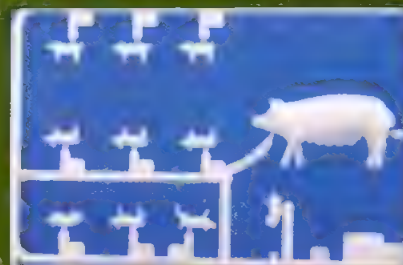


35007, **Livestock Set Vol.1**; 35009, **M1 & 6 PR 7 CWT(BR) Ammunition Set**; 35014, **East Meets West** and 35015, **Livestock Set Vol.2**.

Website: www.riichmodel.com



an artillery tractor with Russian flavor, there is also 35124, **STZ-5 Artillery Tractor**



Okay folks, those are just the full kits. They also have a healthy dose of accessories and figures out now: 30001, **T-152 Workable Track Set For M-109 SP**; 30002, **T-136 Workable Track Set For M-109 SP**;

Royal Model

Royal Model of Italy can always be counted on to deliver when it comes to both variety and quality for your aftermarket needs. If you turn a few pages, you will see many of these items in action in the article by Roberto Reale: 659, **U.S. Infantry at Rest with Rifle-WWII (No. 1)**; 660, **U.S. Jeep Driver U.S. Infantry**; 661, **U.S.**



Infantry at Rest with Rifle-WWII (no.2); 666, **M-10 U.S. Crew**; 663, **Mattresses**; 659, **U.S. Infantry at Rest with Rifle (WWII)**; 667, **M10 Stowage Set**; 674, **U.S. Infantry Rifleman (WWII)**;



677, **Chained Wheels for M8/M20** and 687, **Panther Tanker (WWII)**.

Website: www.royalmodel.com

SKP

SKP remains as prolific as ever. The biggest news items are their re-worked Challenger, 025 Challenger Mk.VIII (A30), that has a number of upgrades and their new Dorchester variant, 060, Dorchester DAK. Also, just out is 190, Morris FAT. This is a full

ACV Dorchester DAK



SKP model

1/35

kit of the British Commonwealth WWII tank.

SKP makes a lot of lenses to dress up the lights on your armor. Their new list of these items is really long. 146, Lenses and Tail Lights for BTR-60; 157, Lenses and Tail Lights for Buffalo

MPCV; 158, Lenses and Tail Lights for Challenger 1; 159, Lenses and Tail Lights for Challenger 2; 161, Lenses and Tail Lights for Leclerc 2; 162, Lenses and Tail Lights for LMTV/FMTV (Trumpeter); 169, Lenses



And Tail Lights For Dana; 170, Lenses and Tail Lights for Studebaker US6; 172, Lenses and Tail Lights for Leopard 2A6M; 173, Lenses and Tail Lights for T-90; 174, Lenses and Tail Lights for M1151; 183, Lenses and Tail Lights for T-55; 186, Lenses and Tail Lights for BRDM-2; 191, Lenses and Tail Lights for T62 and 197, Lenses and Tail Lights for Jeep Willys (Bronco).

Wow! That was a pretty dense list. We left the other bits and pieces out to lighten it up a bit, but SKP is no less prolific when it comes to accessories this time around: 163, Tow Cable for Pz.Kpfw 35(t); 166, US Machine gun Browning 1919; 167, Prime Minister; 168, Wheels or Hetzer Starr; 176, DShKM Heavy Machine Gun; 177, DShKM with Fitted Barrel; 178, Early Turret for T-72; 179, Wheels for Mercedes (Master Box); 181, Wheels for Opel Olympia (Bronco); 182, AGS-17 30 mm Grenade Launcher and 192, Decals for UAZ.

Website: www.skpmodel.eu

SOGA Miniatures

Soga Miniatures is a Russian web shop that specializes in figures. If it's Russian, resin and otherwise hard to find you can probably get it from Soga.

They also have their own line of figures that are pretty nice and we recently started getting updates from them.

The ones we liked best are the new 101st Airborne figures from WWII in 1:35 scale: 3510, 1 Lieutenant, 101st Airborne, WW

II; 3511, U.S. Army Airborne On Rest; 3512, U.S. Army Airborne On Rest; 3513, U.S. Army Airborne BAR Gunner On Rest; 3514, Sgt. U.S.



Airborne Division On Rest; 3515, U.S. Army Airbornes On Rest; 3516, Major and 1 Lieutenant 101st Airborne Division, WW II; 3517, U.S. Army Airbornes and Sgt. On Rest and 3518, U.S. Airborne BAR Gunner and Airborne

On Rest. If you want all of these figures, they come as a huge super set: Soga-1, 101st Airborne Division On Rest, WWII.

There were three other figure sets that are unrelated but also relatively recent: 3503, The Defender of

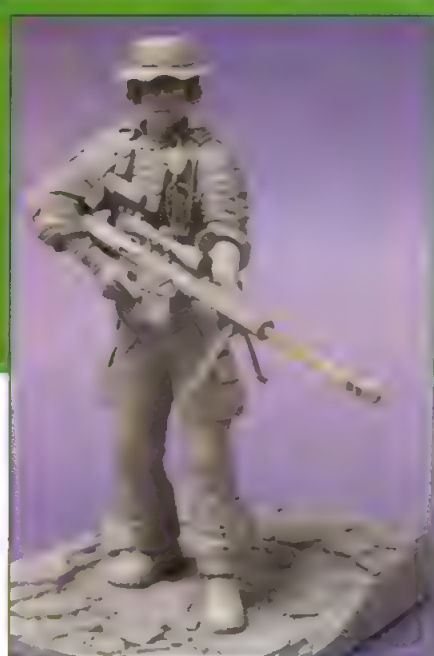
Germany 1945; 3504, Sturmsharfuhrer SS 1944 and 3505, The Trophy.

Website: www.soga-miniatures.com

Special Ops Models

Andy Meyers is the head honcho of Special Ops Models. We caught up with him last year at the IPMS Nationals in Orlando. He gave us a real nice close-up of his 1:9 scale figures. We were very impressed by the large scale and the attention to detail. MNS-901B, 1:9 scale Modern Navy Seal (Iraq/ Afghanistan) is a full figure that has over 40 parts and insignia decals. If you are less ambitious, SFS-922, 1:9 scale Special Forces Sniper Bust (Afghanistan) will look just as impressive sitting on your shelf or on the contest table.

Website: www.specialopsmodels.com



Squadron

Squadron has really put on some steam with a bunch of armor reference lately. The following new titles come in both Hard Cover



and Soft Cover: SS27030 (Soft Cover), SS67030 (Hard Cover) M8/M20 Armored Car; SS27031 (Soft Cover), SS67031 (Hard Cover) Diamond T 4-ton Truck Walk Around; SS39001

(Soft Cover), SS79001 (Hard Cover), Ferdinand/ Elephant Detail in Action; SS27029 (Soft Cover), SS67029 (Hard Cover) M18 Hellcat Tank Destroyer; SS12051 (Soft Cover), SS52051 (Hard Cover) M151 Mutt In Action; SS27026 (Soft Cover), SS67026 (Hard Cover) M551 Sheridan Walk Around and SS36003 (Soft Cover), SS76003 (Hard Cover) OH-6



Aeroscout Combat Chronicles.

Website: www.squadronsignalpublications.com



Tank Workshop

Tank Workshop has been turning their efforts toward 1:48 scale lately. A lot of people will like these Panther conversions since the Tamiya kit is wonderful but only accurate for a late G model: 48101, Panther A Conversion; 48102, Panther D Conversion; 48201, Israeli M50 Conversion; 48305, Ford Sedan Sand Tires W/ Hubcaps; 48208, IDF M4 Sherman Live Target and 1044, GTK Boxer MRV wheels (Revell).



Tankograd

As usual, Tankograd has churned out a huge amount of reference material.

We'll start out with **Leopard 2 Maintenance**. The title is really self-explanatory. Modern armor lovers will want to order this one today or yesterday if that works.

You will want to put on a seatbelt for this update on their numbered books: **World War One Special 1007, Panzer-Kraftwagen - Armoured Cars of the German Army and Freikorps**; 3018, **M520 Goer - M561 Gama Goat Articulated Trucks of the US Army in the Cold War**; 3019, **1st Armored Division Vehicles of the 1st Armored Division in Germany 1971-2011**; 4018, **Henschel 33 3-ton 6x4 Trucks in Reichswehr and in Wehrmacht Service**; 4019, **German Armoured Formations in the OZAK 1939-45**; 5016, **Tank Destroyers Gun/Missile of the Modern German Army**; 5037, **ATF DINGO 2 - Protected Vehicle**; 5038, **Panz-**

erschlacht in Süddeutschland - Kecker Spatz 87; 5039, **Boxer The GTK Multirole Armoured Wheeled Vehicle in Modern German Army Service**; 5040, **'Emma' The MAN 630 L2 A / L2AE 5-ton Truck in Modern German Army Service**; 5041, **Fahrzeug-Graffiti Gecon-ISAF Personal-**

Compressor Trucks, Mess Trucks, Radio Trucks & Rocket Launcher Trucks; 6024, **U.S. WW II M24 Chaffee Light Tank**; 6025, **U.S. WW II White-Brockway-Corbitt 6-ton 6x6 Trucks**; 6026, **U.S. WW II M32, M31B1, M32B2, M32B3 Tank Recovery Vehicles**; 7026, **Ejército Argentino Vehicles of the Modern Argentine Army**; 7027, **Vehicles of the Modern Swedish Army**; 8007, **Canadian LEOPARD C1 in West Germany 1977-93**; 9019, **JACKAL High Mobility Weapons Platform COYOTE Tactical and 9020, Challenger 1: The Last Cold War Era Tank of Britain's Armoured Corps.**

There were some other titles that were not numbered as well: **German Panzers and Allied Armour in Yugoslavia in World War Two**; **New Gallery Beltrig 2012**; **British Military Trucks in Wehrmacht Service and British Military Trucks of World War 2.**

Website: www.tankograd.com



ized Vehicle Markings during the German Mission in the Balkans; 5042, **Personalized Vehicle Markings during the German Mission in the Balkans**; Nr. 6023, **U.S. WW II GMC - Air**

Trumpeter

There is something in this huge list for every one, so read carefully: 1011, **US M7V (Medium Tactical Vehicle Replacement)**; 1503, **Canadian Husky 6x6 Armored Recovery Vehicle (ARV)**; 1529, **Russian BMP-3F Infantry Fighting Vehicle**; 1545, **BTR-60PB Upgraded**; 1556, **Russian T-42 Mod.1972 ERA Tank**; 1571, **Soviet Su-152**

rier; 1578, **Soviet T-64 Model 1972 Main Battle Tank**; 1583, **German Sd.Kfz. 8 12-Ton Heavy Halftrack**; 1597, **JGSDP TYPE 90 SPIE**; 2048, **VK-3001 Workable Track Link Set**; 2049, **E-100 Workable Track Link Set**; 2050, **T-72 Workable Track Link Set**; 2056, **Stv 100 Late Workable Track Link Set**; 2053, **Karl Early Workable Track Link Set**; 2054, **Karl**



Self-Propelled Heavy Howitzer Early; 1576, **Russian BTR-60PB Armored Personnel Car-**

Late Workable Track Link Set; 2322, **Soviet MI-26 M1937 152mm Howitzer, Standard**; 2327, **Soviet UAZ-460 All-Terrain Vehicle**; 2328, **Soviet D30 122mm Howitzer - Early Version**; 2333, **Soviet D-20 152mm Towed Gun Howitzer**; 5512, **Russian BRDM-2 Amphibious Armored Patrol Car, Late Version**; 5525, **Italian PUMA 4x4 Wheeled Armored Fighting Vehicle**; 5526, **Italian PUMA 4x6 Wheeled Armored Fighting Vehicle**; 5535, **ASLAV-PC PHASE**; 5540, **Soviet Komintern Artillery**



Tamiya

There are many models in this list, so read carefully: 1011, **US M7V (Medium Tactical Vehicle Replacement)**; 1503, **Canadian Husky 6x6 Armored Recovery Vehicle (ARV)**; 1529, **Russian BMP-3F Infantry Fighting Vehicle**; 1545, **BTR-60PB Upgraded**; 1556, **Russian T-42 Mod.1972 ERA Tank**; 1571, **Soviet Su-152**



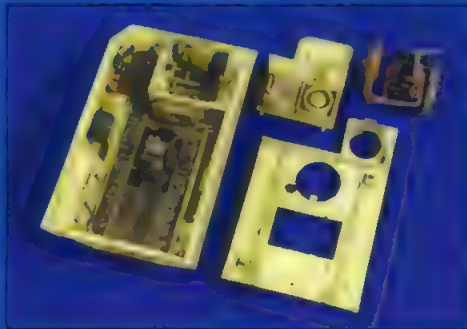
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Tractor and 5512, Soviet BMP-1 Infantry Fighting Vehicle.

Website: www.trumpeter-china.com and www.2.stevenshobby.com (U.S. Distributor)

Verlinden

Verlinden also had a huge listing of new items: 2728, M24 Chaffee Engine and Compartment (Bronco); 2729, Jungle Plants; 2730, Point Blank Panther G (Cyberhobby); 2731, M113 Full Interior (Academy); 2732, M24 Chaffee Stowage Ammo Crew; 2734, M21 Mortar Stowage Ammo Crew; 2735, M24 Chaffee Interior (Bronco); 2736, 15cm Nebelwerfer Ammo Crew Gear; 2738, Cable Reels; 2739, Duster Crew Ammo Stowage; 2740, Duster Interior (Drivers); 2741, T55 Turret Point Blank; 2744, 120mm Chopper Crew Vietnam; 2746, Mid-East Pick-Up Stowage



Crew; 2747, German 75 mm PaK Crew-Ammo-Gear; 2748, SWS Ammo Crew Stowage; 2749, 120mm Recon Vietnam; 2752, Fallschirmjäger at Casino Vignette; 2753, 75mm Snermans WWII Crew-Ammo-Stowage Supplies; 2754, Panzerwerk Heavy Factory Lathe with Figure; 2755, British Para WWII; 2757, Bural WWII Vignette; 2759, German WWII Tank Gunner and 2760, 105 Howitzer Vietnam Ammo-Crew-Gear. Some of these items, such as the Chaffee and Duster interiors are

really worth further investigation and we refer you to the website for that.

Website: www.verlindenonline.com

Merkava Siman 3D: Merkava Mk 3D in Israeli Service Part 2

By Michael Mass
Desert Eagle Publishing
78 Pages Full Color
ISBN 978-965-91635-1-9

www.deserteagle-publishing.com



MICHAEL MASS AND DESERT Eagle strike again with this second volume on the Merkava III, the tank that is the backbone of the present IDF armored force. Desert Eagle No. 2, published a few years ago, covered the unmodified Merkava Mk. III in

detail. The subject of this newest book is the Dalet version that features an armor upgrade on its turret. A quick flip through the new book reveals more than 200 full color photos and detail

diagrams. To kick things off, the introductory chapter is a succinct briefing to bring you up to speed on all four Marks of the Merkava and their variants. The next chapter is all "in action" photos that include some coverage of vehicles from the 2009 Cast Lead operation. The Man and the Machine is the next section. It focuses on the crews in action. After this comes an "in detail" chapter with an extensive walk around that also includes detail diagrams of components such as the rear stowage bins, the turret basket and the .50 caliber machine gun mounted above the main gun. Some pictures of the power pack and a short essay on markings are included at the end of the chapter. The book concludes with a wonderful article on a Merkava IIID model done by the editor, Adam O'Brien. With the recent releases by both Meng Models and Hobby Boss, this is the right reference at the right time for both kits. Thanks to Michael Mass for the review copy.

FT-17/ M1917 WWI Tanks Walk Around

By David Doyle
Squadron/Signal Publications
80 Pages Full Color
ISBN 978-0-89747-636-2
www.squadron.com



THE RENAULT FT-17 design is a landmark tank. Its architecture has become standard for almost every tank that followed its intro-



duction in 1917. It was the first tank to have a rotating turret, as well as the first tank to have a driver up front and an engine in back. The M1917 Six Ton Tank was the designation for the U.S.-built version of this famous machine. There were a few variations on both vehicle designations that mostly had to do with turret design and armament. David Doyle does his usual excellent job working within Squadron/Signal's tried and true Walk Around format. The first part of the book covers surviving museum examples from the U.K., the U.S., Switzerland,

Book Reviews

Mud & Dust

By Michael K. Cecil
New Holland Publishers
272 Pages Black and White
ISBN: 9781741107678
www.newholland.com.au



THE AUSTRALIAN MILITARY fought alongside the United States in Vietnam from 1965 to 1972 using a wide variety of vehicles, engineering equipment, and artillery from American, Commonwealth, and indigenous sources.

Mud & Dust is a visual encyclopedia developed in conjunction with the Australian War memorial. It is broken down into chapters covering artillery, AFVs, light, medium, and heavy vehicles, as well as engineering equipment. There are more than 400 photos in total. The Centurions and M113s used by the Australian Army are well known to modelers and these are represented soundly in the book, but there are some surprises such as WW2 era Federal Model 604 tractors and leased M123C trucks with M15A2 trailers.

Australian's long and lonely highway system favors most of the American tractor-trailer manufacturers. Names such as Mack, Diamond Reo, and International set up subsidiary operations there and these trucks were either adapted from civilian models, or built to military specifications for the Australian Army. This book is a welcome addition for anyone interested in Australia's military operations in Vietnam.

WWII

HUMBER MK.IV & GM FOX MK.I



Trucks

Discover the history, construction and the many roles of the truck in the military. This book covers the history of the truck in the military, from the early days of the horse-drawn wagon to the modern day truck. It includes a detailed look at the truck's design, construction, and the many roles it has played in the military. The book also includes a detailed look at the truck's history, from the early days of the horse-drawn wagon to the modern day truck. It includes a detailed look at the truck's design, construction, and the many roles it has played in the military.



France and Belgium. Before moving on to the M1917 (the American license-built version), there are two four view line drawings of both the FT17 and the M1917. There are four examples of the M1917 profiled, all from U.S. museums. All of the surviving examples are in good shape. The photos and captions are clear and informative. Now all we need is for some of the kit manufacturers to wake up and give us a kit, so write your congressman today. Thanks to David Doyle for the review copy.

German Armored Cars in Action
By David Doyle
Squadron/Signal Publications
80 Pages Black and White with Color
ISBN 978-0-89747-681-2
www.squadron.com



GERMAN ARMORED CARS in Action is a survey book that covers German six and eight wheeled armored cars from WW2. All of the

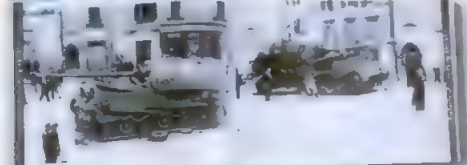


photos in the book are period shots. Surprisingly, none of Squadron's famous color plates are included. There is an emphasis here on the Sd.Kfz. 231 6-rad and Sd.Kfz. 231 8-rad and the variants of those models. As far as the 6-rad goes, there is extensive coverage of the Sd.Kfz. 231 and the 232 (radio version). The Sd.Kfz. 8-rad takes up most of the book with coverage of the Sd.Kfz. 231, 232 (radio version), 233 (7.5 cm armed), 263 (radio) and the Ballistic Messfahrzeug auf Schwere Panzerpahwagen (ballistic recording). That last one is a real oddball that panzer freaks everywhere will want to check out. The book also has coverage of the Sd.Kfz. 234 series, with the 234/1 20mm armed version, the 234/2 "Puma," 234/3 75mm L/24 armed version and the 234/4 75mm Pak 40 armed version. The coverage of the 234 series is less extensive but the photos are nice and big. Overall, we thought this was a great reference work on German heavy armored cars, especially if you are doing an early war project on the Italeri 231 6 wheeler, the old Tamiya kits, or those spanking new AFV Club 8-rads. Thanks again to David Doyle for the review copy.

Panzerwrecks 13: Italy 2
By Lee Archer and Bill Auerbach
Panzerwrecks Publishing
96 Pages Black and White
ISBN 978-0-9841820-7-7S
www.panzerwrecks.com



PANZERWRECKS IS BACK in town with another blastastic volume of cracked-up kraut hardware. They have



gone back to the idea of covering different fronts in separate books that they began in Panzerwrecks 7.

This latest edition takes us back to sunny Italy for the second time. It starts off with a short essay titled "Weapons Dump Italian Style" with some nice shots of Marder IIIs. There are actually some shots of captured, then re-captured Shermans included, as well. A couple of pages of StuG III action follow before "The Story of Nashorn 214," an essay on a Nashorn captured by Polish troops. A mix of Panther and Tiger shots then precede the next feature on derelict Elefants from Panzerjäger Abteilung 653, which is pretty hefty. After that are two more shots of StuG IIIs and then a survey of halftracks, including nice pictures of a 37mm Flak armed Sd.Kfz. 7/2. Panzerwrecks also squeezes in some Italian hardware impressed into German service. Speaking of Beutepanzer, there are some T-34s and a French 194mm self-propelled howitzer in here too. To wind things up, there are some pics of Pantherturns, Panthers and some nice shots of Mark IVs. Panzerwrecks never fails to impress, so order one up and bring that collection up to date. Thanks to Bill Auerbach for the review copy.

Scale Model Handbook: Figure Modelling 2
Edited By Stelios Demiras
Mr. Black Publications
50 Pages Full Color
ISSN 2241-1054
www.mrblackpublications.com

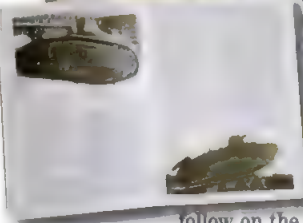


THIS IS THE SECOND IN A SERIES of new books on figure modeling from our Greek pal, Stelios Demiras. The figures covered in this book run the gamut from Medieval to WW1 to Ancient Greece. The subject matter may be beyond the normal realm of interest for some readers of MMiR, but the modeling and finishing techniques profiled are readily transferable to figure works of any era. The first feature covers the painting

of a medieval knight using a combination of acrylics and oils. The second features "Blackbeard," the pirate figure, and illustrates the simulation of fabrics. The third is a WW1 German Stormtrooper and this illustrates methods for creating a realistic vignette setting. The fourth article is another medieval piece, this time a Templar Knight. The fifth article is a profile of works from the French Master, Luois D'orio. The last article is an ancient Greek and emphasizes the use of oil paints. All of the photos in the book are in full color, with most being finished shots of the feature pieces, although there is a fair amount of step-by-step photography. If you liked the first volume of this series, you will dig this one, too. We recommend it to figure enthusiasts because of the quality of the photos and the emphasis on how-to techniques. Thanks to Mr. Demiras for the review copy.

Trackstory No. 13: Le Char B1
By Pascal Danjou
Published by Editions du Barbotin
62 Pages Black and White with Color
ISBN 978-2-917661-15-4
www.minitracks.fr

THE CHAR B1 IS THE DIRECT PREDECESSOR OF THE CHAR B1 Bis that became famous in the Battle for France in 1940. Only 35 were made and they were pretty long in the tooth by 1940 but some of them still took part



in that campaign. Long time readers will remember this version from the large feature on the Tamiya Char B1 Bis model done in MMiR 44 that featured four models including a B1 constructed using an Azimut conversion set.

The long development of the B1 began right after WWI and this latest Trackstory covers it in detail in the beginning text along with some very nice period photos of the different experimental versions. Short sections follow on the Naeder transmission, fuel trailers and a short chapter on that fills in details between the B1, B1 Bis and the proposed B2. The text concludes with the story of the Char B1 deployment with the 511e RCC, including the wartime experience of the B1 and various paint and markings schemes. The final section of the book is largely graphical, with some very nice color plates, most of which are accompanied by photos of the actual vehicle depicted. Once again Editions du Barbotin scores a touchdown by covering another aspect of French armor that no one else has touched on in detail before. Thanks to Pascal Danjou for the review copy.

Armor Photo Gallery #22: Pz.Kpfw IV Ausf. G
By Wojciech J. Garwych
Published By Model Centrum Progres
72 Pages Black and White with Color
ISBN 978 -83-60672-17-4
www.modelbooks.republika.pl and
www.squadron.com



MODEL CENTRUM PROGRES HAS taken a break from the British/Commonwealth theme that they have been covering so well to crawl around and through the surviving Pz.Kpfw. IV Ausf. G. located at Panzermuseum Munster in Germany. The walk around starts with the front hull details, and moves inside to the driver's station and the hull fighting compartment, back outside to the hull sides, fenders and hull

rear before dipping into the suspension. The turret is covered on the outside before moving along to the hatch interiors, commander's cupola and then into the turret proper. Two shots the Maybach HL 120 on display are included before the appearance of 1:35 and 1:48 scale line drawings. A healthy chapter of period photos, along with a vehicle history wraps things up. This latest edition of Armor Photo Gallery definitely upholds the standard set by the excellent books on the M4A2, Mk VC and Mk IC Firefly walk arounds that we have seen in the past. It's a must for Panzer enthusiasts everywhere. Thanks to Mr. Garwych for the review copy.

Meng's Menacing Merkava

Getting your brass groove on



While the newer Merkava Mark IV gets a lot of press these days, the Mark III is actually the real mainstay of Israel's tank fleet. Production started in 1989 and continued up until 2003 with a total of 780 units built. It is a marked improvement over the Mark II in firepower, protection and mobility.

Main armament is a domestically produced copy of the world-beating Rheinmetall 120mm smooth-bore. The Mark III was the first version of the Merkava to feature composite armor and the Mark IIID model portrayed by Meng in this article also features reactive and modular armor upgrades on the turret. A 1,200 horsepower engine propels this 65-tonner at a maximum speed of 37mph (60km/h) and the range is advertised as 310 miles (500 km).

Diving right in

My first impressions of this kit were very good. The box art is nice and there were a lot of parts to look at when I opened it up. All of the parts looked crisply molded with no real flash to speak of. The link-to link tracks were all in a baggie instead of

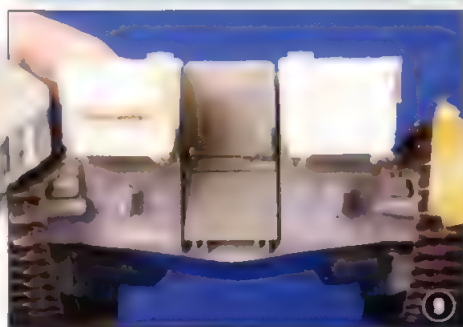
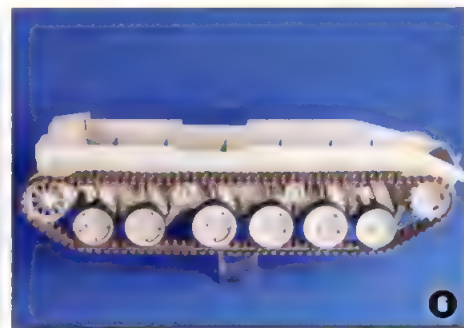
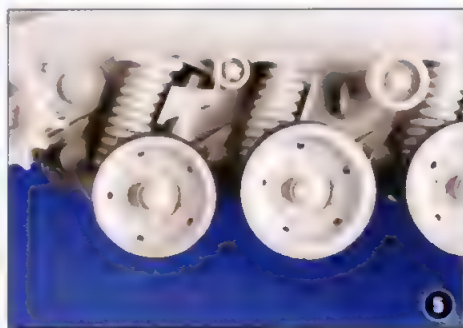
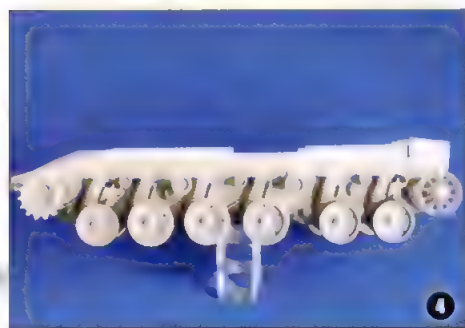
being on sprues, a big time-saver. The instruction sheet has 45 steps, so I prepared myself for an in-depth construction phase.

Before I grabbed my snips and cement, I sat down with the kit and a copy of Desert Eagle No. 5: Merkava Siman 3D. This is probably the best reference for building a Merkava IIID. There were two main areas of detail that I decided to improve. The first was the stowage. Meng Models does provide complete stowage bins, but they are empty. To fill out the missing details, I chose to use the Blast Models Merkava 3D Update set (BL35186K). The second issue was the anti-slip coating that is prominent on many modern armored vehicles. Model manufacturers often overlook this and that is the

case here. For the anti-slip, I decided to use the old Cast-a-Coat method.

Nurse, sprue cutters please

There are two different types of road wheels for this vehicle, all steel and rubber-rimmed. There is also an optional steel reinforcing ring provided that fits either road wheel type. It is very common to see



1. There is a full array of both rubber and steel rimmed road wheels in the kit along with the optional reinforcing rings. **2.** The rear idlers include the lightening holes in the rims that are omitted in other Merkava kits. **3.** Here is a look at the suspension before the wheels are on. **4, 5.** I used a mix of rubber and steel rimmed wheels along with reinforcements in the first three stations. Due care is necessary to make sure all the road wheels touch the ground. **6.** I skipped ahead in the instructions and assembled the link-to-link tracks at this time. **7.** The track links are well detailed and even have tiny casting numbers. **8.** I filled in the divots for the spare track links and added a chassis number plate on the lower rear and lower front hull. The numbers are included on the kit sprues. The styrene strip used to make the rear door panel fit properly can also be seen here. **9.** The Blast rear storage bins look good when installed but the corrugated parts of the baskets should have the angled parts facing outboard. I used small bits of brass chain to replace the resin detail that had broken off. **10.** I blanked off the back of the exhaust grill and engine deck part D6 with sheet styrene.

both types on the Merkava III, so I went ahead and mixed it up. I used the reinforcing rings on the front three road wheels on each side. The backsides of road wheels were painted flat black to keep the gray plastic color from peeking out later. The rear idler wheels are nice too. They feature lightening holes in the rims; a detail left off on other Merkava kits.

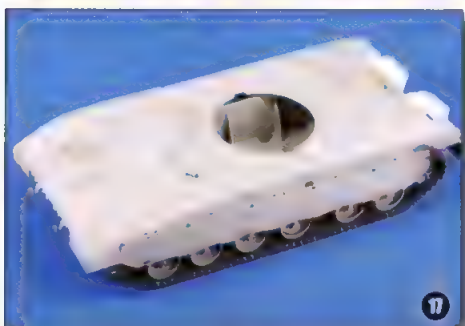
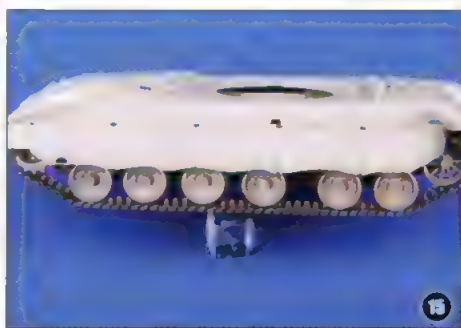
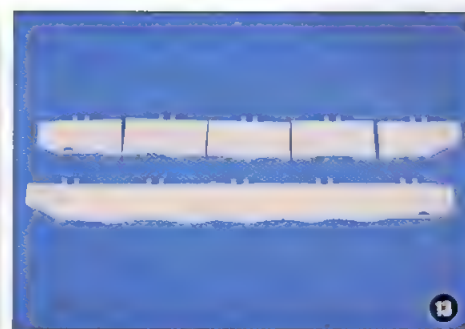
Steps two through six involve adding suspension and detail parts to the hull.

For the rear idler mounts, I drilled out a small hole in parts C2 and C23. On the lower rear hull, I filled in the location divots for the spare track links since I did not actually see these in reference photos. A chassis number plate was added to the lower hull front and rear plates using some styrene strip and numbers shaved off of the kit sprues. The final drive cover parts C1 and C2 need a little putty to be

blended since there is no seam where these parts join on the real tank. All of the suspension parts go on well enough, but I found that I needed to exercise care when attaching the road wheels to make sure they all touch the ground. I assembled my track runs at this point. The link-to-link tracks are well detailed and even have tiny casting numbers on them. There is a small ejection pin on the outside cleat and some knockout marks to get rid of on the inside face of each link but the links go together well and there

were enough in the kit. This made me happy.

The lower rear hull details were next. The rear door frame (part D7) was shimmed with styrene in order to fill some gaps before adding the door. The stowage bins provided in the kit are empty, so I used the resin ones provided in the Blast update set. The Blast parts needed extensive trimming to fit but look better than the kit parts. I did notice a small discrepancy. The corrugated grating on the basket seems to be reversed on the bins. The angled por-



11. The multiple engine deck parts settle down well and look very good after some test fitting and minor trimming. **12.** Front headlights are included in the kit but I thought they stick up too high so I left them off in the end. **13.** I cut the single piece side skirts in to pairs like on the real tank. **14.** The side skirt panels are very accurate and even include their station number. **15.** The suspension parts and tracks were painted their basic colors before adding the hull top and skirts. **16.** The upper hull part had a bit of an overbite. I shaved down the rear hull parts around the fuel tanks, glued the hull down from front to back and then blended the nose as seen here. **17, 18.** The completed lower hull looked pretty good to me despite some minor details missing such as the anti-slip and the retainer chains for the side skirts. **19.** Assembling the multi-piece roof was the first thing I did for the turret. Detail level is good but

tion is facing inboard instead of outboard. This would have been possible to fix by simply switching the position of the bins but the collapsible stretcher bag is molded onto the left bin where it belongs. I also added some small brass chains to the bottom corner of each bin as the molded on ones had broken off and crumbled into dust.

Steps 10 through 18 all involve the upper hull. The detail level here is good here except for the absence of the anti-slip coating. To start, I blanked off the large right side exhaust grill (C38) and another small opening in D6 with sheet styrene. The driver's periscopes are clear parts and I left those for later. The engine deck itself is a multi-part affair that captures all of the weird little angles and details of the real thing very well with a little test fitting and due care. I was a bit disappointed in the front mud flaps as they are very thick. I thinned these out, made cuts to divide the front flaps into three parts and then bent them up some with my

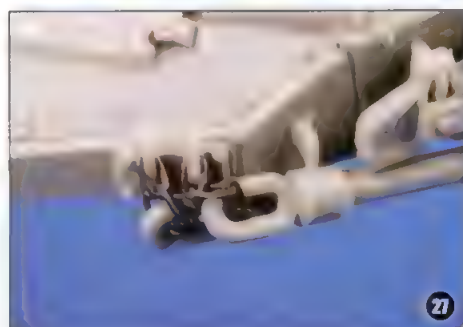
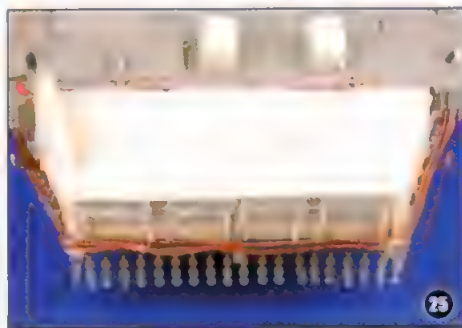
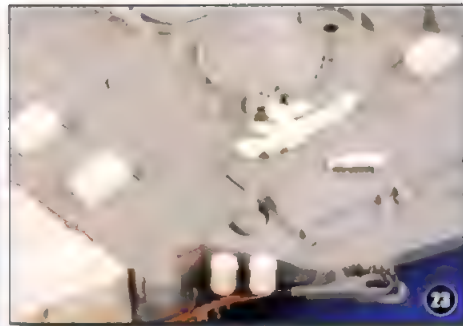
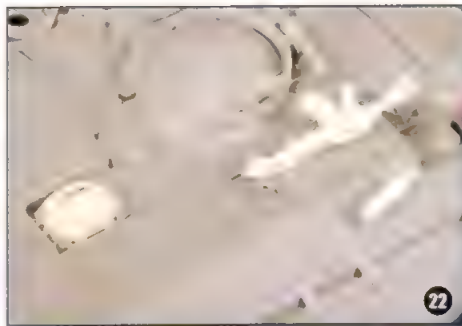
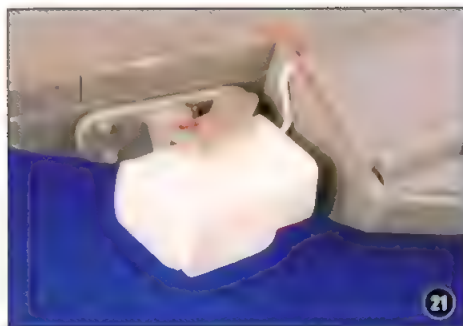
fingers. In hindsight, I should have replaced them with sheet styrene. There were no photo-etch parts that fit available at the time of construction. The provided headlights were test-fitted, but in the end I did not use them because they looked like they sat too high compared to reference photos.

There are two types of driver's hatches provided. I chose "type B" illustrated in step 15. This was an arbitrary choice as both types are accurate for the model of tank this kit portrays. I added the periscopes and covers at this time. I lost one periscope cover and then made a replacement from styrene. Later I noticed that there were extra covers in the kit. Duh! I left off the provided front driver width guides as almost all tanks I saw with these also had them attached in the back and those parts are not provided in the kit. The side skirts are well detailed and come molded each as one piece. I cut these apart at the appropriate intervals where the attachment frames do not hold them together. The side skirts fit well enough, the only real detail missing are the chain links that hold the pairs of skirt pieces together and the front and rear chain retainers. This is a small but prominent detail that I was eager to add, but was stymied because I didn't have any brass chain of the proper gauge.

Before attaching the hull top and skirts to the lower hull, I painted the lower hull sides, running gear and track their associated basic colors. At first, the upper hull seemed to have a fit problem, with a prominent lip at the front plate. I was able to solve this by shaving down the area in the back where the upper hull rear and the fuel tanks join very slightly and then using some gentle persuasion and super glue to get the hull sides to settle down properly as I moved from back to front. Finally, I grabbed my Flexi-file and sanded down the remaining lip up front and blended everything with putty.

Menga turret

The large and very complex turret came next. Meng Models managed to capture the overall shape and most of the detail quite well. When it came time to assemble the turret, I did not strictly follow the instructions. I actually assembled the multi-part turret roof first, leaving all of the small detail parts off for later. The detail level was good with the only major omissions being the lack of anti-slip and the small rectangular data plates that are present on each piece of modular armor. Next up was the main gun. I drilled out four small holes in the knobs for the barrel evacuator-locking ring, part F23. There



the small rectangular data plates and the anti-slip coating are missing. **20.** After putting the main gun together, I glued everything in place in the hull bottom part since the fit was loose. **21, 22, 23.** Parts from the Blast accessory set were used for the M4 carbines, spare ammunition boxes, fire extinguishers and smoke pots. **24.** I was a little disappointed with the casting quality on the carbines. **25.** The Blast rear turret basket looks great after test fitting and careful trimming of the mating surfaces. **26.** I used the kit provided ball and chain array. It was simple yet effective. The tow cables are leftovers from a Voyager photo-etch set secured with chain from the scrap bin. **27.** A close-up of how I secured the tow cables. **28-32.** Blast resin parts dress the kit machine guns up nicely with the exception of the tank commander's searchlight that looked blobby after painting.

are poly caps provided for the gun mount, but the fit is very loose. I glued my main gun assembly in one position after mounting it in the turret bottom. The turret roof fit is pretty good when cemented to the turret bottom but I did use some filler when attaching the turret face parts K6, K10 and K11.

Now it was time to add all the small detail parts. As far as the provided kit parts go, the loader's hatch is a rather complicated subassembly and the sighting devices need some putty to make them look like one piece. Clear parts are provided for these and the periscopes, which is a nice touch. I used replacement parts from the Blast where needed such as M4 carbines in their carriers, ammo boxes, smoke pots on turret rear and fire extinguishers. The Blast M4 carbines were a little disappointing as I thought the molding could have been sharper. The ammo boxes provided for the machine guns and the spent shell bag for the .50 caliber are nice. The small searchlight provided for the commander's 7.62mm machine gun is not well molded and in hindsight I should have just omitted this detail. I also used the Blast one-piece rear turret bustle rack. This big chunk of resin took some careful trimming and a lot of test fitting but I was happy with the end result. The ball and chain array that hangs from the bustle rack provided in the

kit is both simple and very effective. I used the Blast smoke dischargers, as they were much simpler than the multi-part kit ones. I also added some conduits for the smoke dischargers and the sensor mounted over the main gun. The last added detail before moving on to the anti-skid was the tow cables. I used the kit heads and some copper cable left over from a Voyager photo-etch set along with some chains from the scrap bin.

I gave a lot of thought as to how I would accomplish the anti-slip coating for this model. In the end, I decided to apply it by hand using Cast-A-Coat. I found some of this stuff buried in a drawer at the office, long forgotten. The glue was no good anymore, so I substituted white glue mixed with water. I worked my way slowly around the upper hull and upper turret panels, section by section, applying the white glue/water solution and then sprinkling in the Cast-A-Coat grit. There were two benefits to using this method. The first is that no extensive masking was required. The second was that I could simply wash off any area I didn't think looked right with tap water and re-do it.

What color is that tank?

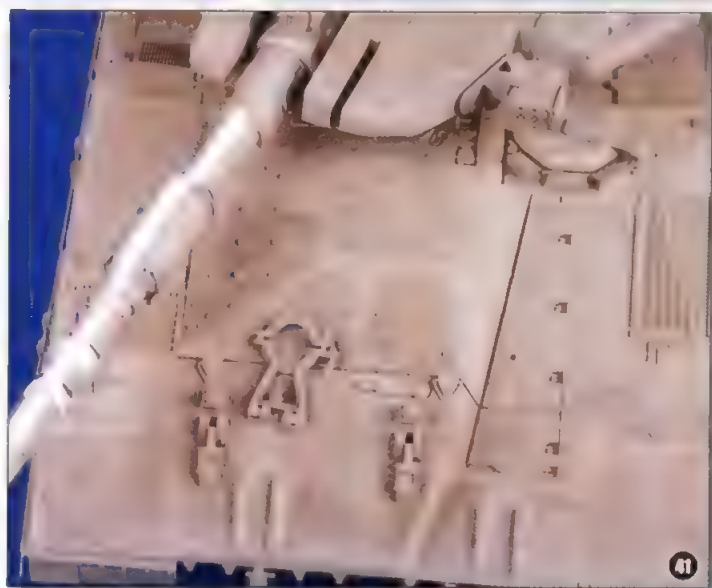
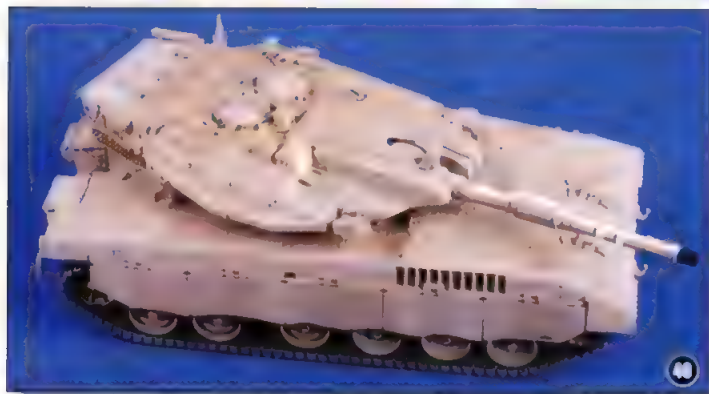
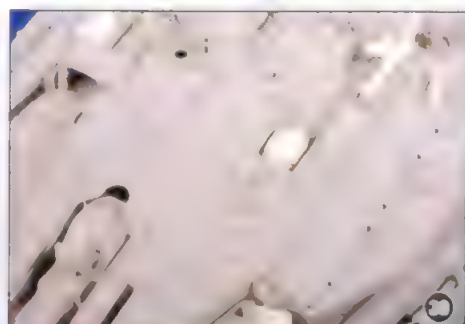
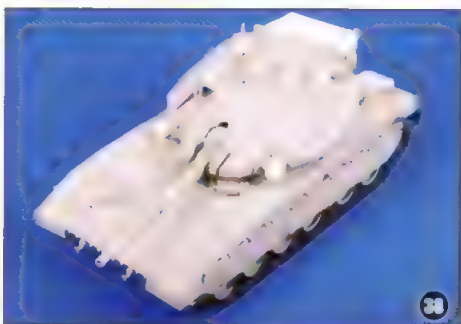
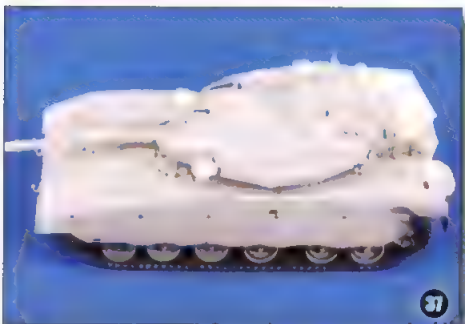
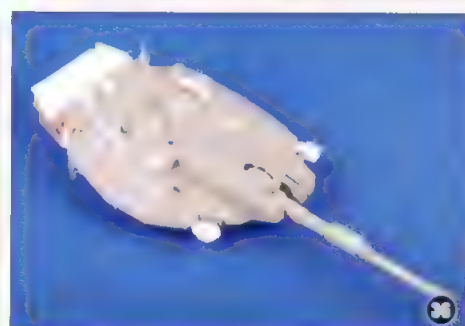
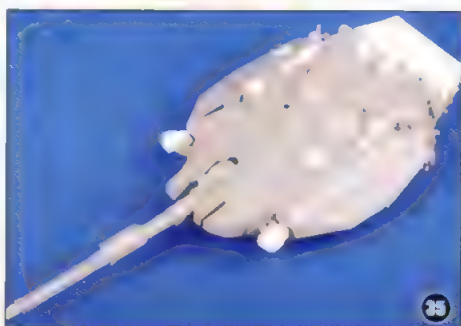
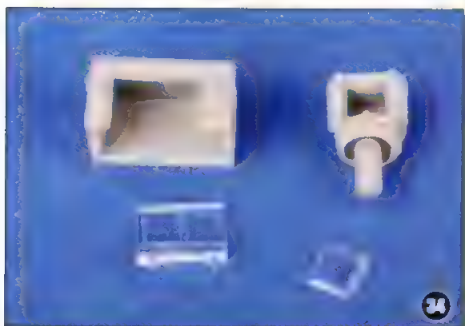
Modern Israeli Sand Grey is a rather deceptive



color. In some reference photos it looks really grey and in others really tan, depending on the light.

There are several companies that make a good paint for this color: Testors, Life color and Vallejo. I chose to use Vallejo Surface Primer 70.614 IDF Israeli Sand Grey 61-73 (FS30372). I added highlights and streaking by adding a little Vallejo 73.615 USN Light Ghost Grey. The cloth areas of the stowage bins were painted the highlight color so they stood out from the rest of the tank. Small details were all hand-painted using Vallejo Acrylics.

AK-086 buffed on over flat black paint was used to give the steel rimmed road wheels and tracks a metallic sheen. The markings on the vehicle are a mix of kit decals and leftovers from an Isradecal Merkava 1/2 sheet (IDF-01). I used squares made from lead foil for the side markings on the turret basket and a piece of plastic card for the large unit logo on the rear of the basket. The barrel markings were airbrushed on using a combination of Tamiya



33. I added a conduit for the front laser sensor. The filled gaps in the turret face parts are also apparent here. **34.** Clear parts are provided for all of the periscopes as well as the gunner's sight and commanders independent viewer. **35. 36.** Two views of the completed turret before adding the anti-slip coating. **37. 38. 39.** I used some long forgotten Cast-a-Coat and a white glue/water mixture to make the anti-slip coating. This method is a bit old-fashioned but it required no masking and was easy to remove if I did not like the result on a section of the tank. **40. 41.** The overall color used was Vallejo Surface Primer 70.614 IDF Israeli Sand Grey 61-73 (FS30372).

tape and extreme patience for masking.

Weathering for this project was pretty simple. The highlight mixture of sand grey and light ghost grey was used for small chips and scratches along with Vallejo German SS Camouflage Black Brown for deeper wear areas.


Washes of 502 Abteilung 0809 Wash Brown, and 015 Shadow Brown thinned with Turpenoid followed to bring out the details. To get things dirty, I made a slurry of AK022 Africa Dust Effects and Mig P033 Gulf

War Sand thinned with AK011 White Spirit.

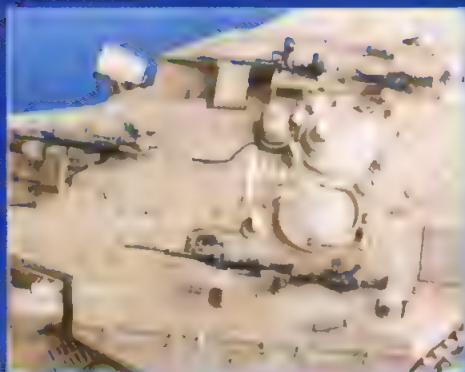
The final touches I added were the antennae and the wiring for the .50 caliber machine gun. The antennae are just styrene rod cut to length and painted white. The wiring for the .50 cal is just that, thin wire from an old transistor painted black.

Conclusion

The Meng Models kit of the Merkava IIID is very complex and captures the overall look of the real thing quite well. With that said, there are some

detail shortcomings such as the lack of the anti-slip coating and the empty stowage bins that really stick out. The Blast Models set helps fill the gap but I was a little disappointed with the fit of some parts and the molding quality on others. Legend Productions has since come out with a detail set that seems to fix all of the problems (LF 1250) but it came out when I was already painting the kit. The Desert Eagle book listed in the Recce was an invaluable reference for this project. 

—Jeff Kleinhenz



Along Midway Mountain Tr. to Sarg. Rd. (Hwy. 70-201) 5,000-6,000 ft. alt. in
open, rocky, grassy area.

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revised 12/01 Microsoft 1.2 Scripting Markup Language 1.0 © 2001 Microsoft Corporation

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Buffalo Soldier

Dragon's Bison II: The enigmatic but arguably cool German AFV



This AFV has been one of my personal favorites for as long as I can remember. Alas, until recently we really had only one kit option for those who wanted to build it, the old Alan kit. Thankfully, Dragon has rescued us from that fate with the release of their Bison II. This kit is light years better than the aforementioned alternative and is illustrative of Dragon's overall quality.

Typical of nearly all Dragon AFV kits, the Bison II box is crammed full of parts. There are 29 sprues of light gray plastic, two clear sprues, two photo-etch sheets, one turned aluminum barrel and a small decal sheet. In addition, Dragon provides their trademark Magic Tracks with separately bagged left and right individual track links. The total part count for those keeping score is well... a crapload! Like other Dragon kits, many of the sprues are shared with other kits. Among them are parts from the earlier Panzer II Ausf. B, C and F, and the Grille self-propelled sIG 33 gun. All the parts are crisply molded, requiring minimal clean up. Noteworthy are the beautifully thin armored shields that surround the fighting compartment.

Because this is an open top AFV with a lot of interior detail visible, I needed to think about how to progress through this project so I'd be able to paint and weather all the visible details. My method

was to build sub-assemblies to paint and weather individually before finally assembling them all together in the end.

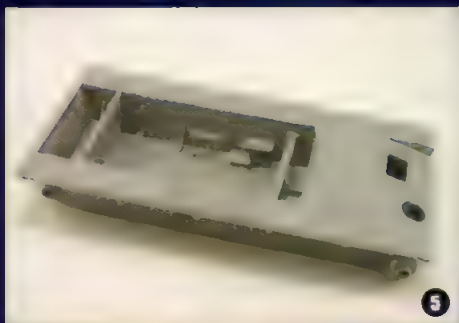
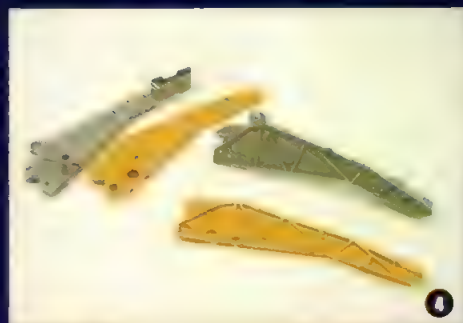
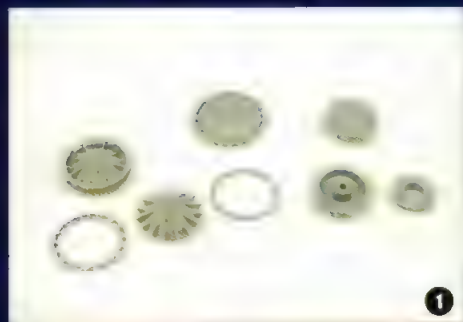
Historical background, please...

Development of an improved self-propelled 15cm sIG 33 gun based on the Pz.Kpfw. II chassis was actually begun before the vehicles based on the Pz.Kpfw. I chassis (the Bison I) even saw combat. Test firing was done at first on a stock Panzer II chassis using the sIG 33 mounted complete with its wheeled carriage. This test was a failure as it resulted in the vehicle tipping backward during firing. The test was re-done with the wheels removed from the gun. This allowed the gun to be mounted further forward and increased the stability a great deal. Alkett produced one prototype using a normal Pz.Kpfw. II chassis. It was judged that the room inside the fighting compartment was too small.

The end result was an almost completely new vehicle. The hull was lengthened and widened. A sixth road wheel was added to each side of the chassis and the engine was mounted transversely. A

transfer case and driveshaft ran down the right side of the vehicle to a transversely mounted transmission. Frontal armor was 30mm thick with a 14.5 mm thick gun shield. Side armor was proof against 7.92 mm bullets. In the end, the only common components this vehicle shared with the Pz.Kpfw. II were the tracks, running gear, steering unit and final drives. As far as the 15cm gun details go, all available photos show that the breech type had lifting eyes. The area around the breechblock, specifically the area around the breech ring, was made up of flattened segments with an indent. Both of these details are indicative of an early sIG 33/15cm gun.

The vehicle had a combat weight of 12 tons, a crew of four, and carried 10 rounds for the sIG 33. A grand total of 12 vehicles of this type were completed and all were sent to North Africa. The gun itself was



1. I built up the road wheels, drive sprockets and idlers as described in the instructions. **2.** This small part adds some nice detail to the inner portion of the final drive. **3.** Before I removed the individual suspension arms I marked each with its part number. This is an absolute must as there are subtle differences in the suspension arms and their placement along the suspension. **4.** The Dragon sIG 33 is quite nice—it's just that the AFV kit is a little better with finer details. The carriage parts are seen here.

The grey parts are Dragon. **5.** **6.** The hull interior gets a bit of test fitting. Note the I-beam at the front of the hull. **7.** The AFV gun is quite the gem! **8.** I added a few more heads to the breechblock from an Alliance Model Works set. **9.** The carriage is resting on my homemade mounts. These were created using styrene stock and some bolts from Armory by Gauntlet.

considered outstanding by troops, but its carriage left much to be desired. Reports indicated that the vehicle was hard to maneuver and was plagued with problems. Overheating was a constant issue due to an overtaxed engine and cooling system that was unable to deal with the harsh conditions in the Sahara. There were also problems with mechanical components breaking. In the end, the design was considered a failure. With that behind us, let's begin...

Having recently completed the review of the AFV Club sIG 33 towed gun for MMIR 57, it just so happened that I had another full kit on the shelf, so I thought what the heck? How about mating these two together? This is not meant to disparage the gun in the Dragon kit, it's quite nice by itself—it's just that the AFV kit is a little better when it comes to the finer details.

Get low...

I typically build my kits in subassemblies. This project was no different. Starting with the lower hull, I built up the road wheels, drive sprockets and idlers as described in the instructions. Before I removed the individual suspension arms I marked each with its part number to keep them straight while I cleaned them up and assembled them. This is an absolute must as there are subtle differences in the

suspension arms and their placement along the suspension. A few passes of a sharp blade removed the minor mold seam along each arm, followed by some light sanding. Before attaching the suspension arms I added the front and rear hull walls to the hull tub, then attached each suspension arm in its corresponding station along the suspension.

Next came the other various bits that make up the rest of the suspension: return rollers, etc. I was careful when attaching the idler mounts, as this would impact the height of the idler and thus the amount of slack in the track run. I also attached the final drive housing at this time, but left off all the wheels so they could be individually painted and weathered. These were to be added to lower hull later when it had been painted and weathered.

Jumping inside...

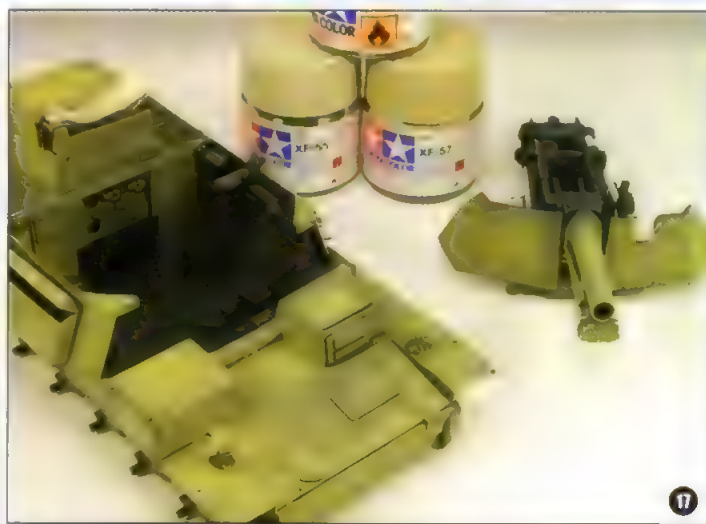
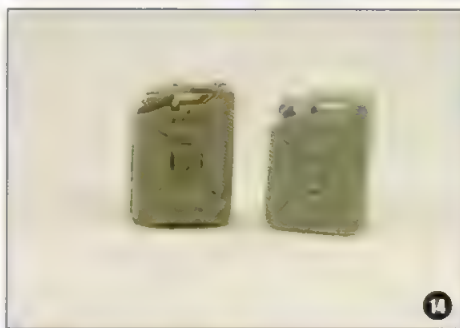
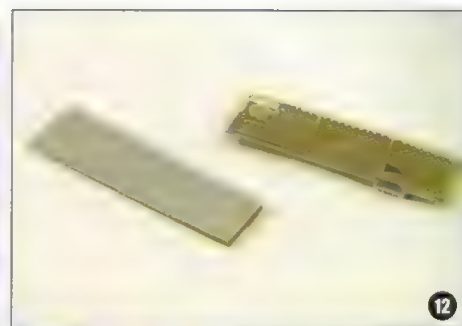
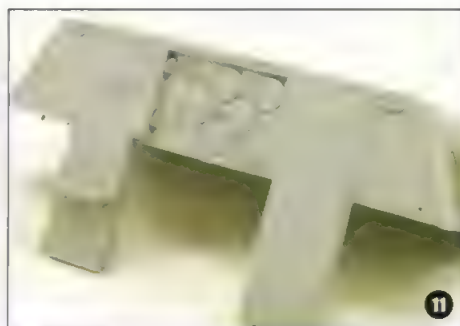
I began thinking how the AFV Club gun would work in place of the Dragon gun. My initial thought was there had to be some means to secure the gun to the frame. Talk about a loose cannon!

There are few pictures of this vehicle and most, if not all, are contained in "Rommel's Funnies" by Tom Jentz. Despite this excellent reference, there are no clear pictures of this area of the gun. So I started thinking (dangerous), how would this have

been done? It seems logical that some type of trunnions would have been designed. Using styrene stock and some bolts from Armory by Gauntlet, I made up a reasonable facsimile. After some trial and error, I was satisfied with the results and built up a pair that I later glued to the horizontal I-beam support arm. This required some test fitting to ensure the gun was located correctly. To do this I needed to build the gun carriage.

The AFV gun carriage was built as a subassembly per the instructions (see MMIR 57). I left off the brake assemblies and wheels. By the way, if you haven't built this kit, you really should. It's a gem! With the gun carriage built, I test fitted it inside the hull. The only issue was to remove the previously installed I-beam (part M21) to allow the top of the gun trail to clear the opening in the rear fighting compartment wall (part P15). Otherwise it was a perfect fit! I set the gun subassembly aside to paint and weather later. I also did not attach the gun shield to the gun. The support arms are very delicate and their attachment points are very shallow.

Next I built up each sidewall of the fighting compartment and their stowage boxes and tools but did not glue them to the sponson. Again, this is so they can be painted and detailed later. I assembled the remaining interior items, gunner's seats, radio



10. Only one radio is included in the kit. Luckily, I had a second radio set from another kit. I used fuse wire and solder to wire up the various electronic and radio components for a little extra detail. **11.** I opened up these tubes in the fighting compartment rear by thinning the styrene from the back of the part using a Dremel tool and burr. Equal lengths of Evergreen 7/23rd styrene tube were super glued these inside each. The result was a convincing opening and much more realistic appearance inside the fighting compartment. **12.** Before gluing the two screens in place, I sprayed each with a coat of Tamiya NATO Black as a counter shade. **13.** Dragon provides some nice photo-etched latches for the storage boxes, and they greatly enhance the appearance of the completed box. **14.** The Dragon Jerrycans were replaced with those from Lion Roar for their finer details. **15.** The muffer got some attention from Mr. Surfacer and a stiff brush in order to add texture to its surface. **16.** Everything was primed Panzer grey mixed from these Tamiya paints. **17.** A light mist of hairspray preceded the desert yellow color coat. **18.** Chipping begins. Starting to remove the hairspray. **19.** I wanted to

give this thing a pretty beat-up look. Chipping finished, revealing the Panzer grey beneath. **20.** Results of the pigment treatment. On the right, the dried pigments, on the left the clumps are removed with a stiff brush to better depict the dry dusty conditions. **21.** Exciting stuff—the subassemblies start to come together. **22-24.** I took several colors of oils from the Mig Abteilung line and applied tiny dots of the oil color directly to the model. The colors varied somewhat based on whether I'm working on the interior panzer grey colors or the desert yellow. **25.** The track runs were primed in a mix of Tamiya Hull Red and NATO Black, before applying rust color tones from the Lifecolor Dust and Rust set. **26.** Wet pigment powder was applied to each track run. I swiped my fingers over the high spots to leave the pigments only in the recesses. Mig Gun Metal metallic pigment was used to produce a realistic polished metal effect. **27, 28.** The Jerry cans were masked off to form the white crosses (meaning water). Various Vallejo and AK products were used to give 'em a well-used look.

frames, and cartridge bins.

In step 7, I noted the option of having either a large stowage box or two projectiles in a ready-rack on the right compartment wall. However, the box will not fit if the ready racks were installed. I chose the ready racks and moved on.

The instructions in step 8 say to build two radios (sprue RD). However, only one sprue is provided in the kit. Luckily, I had a second radio set from another kit. It is not the correct radio but it works for my purposes. I left out the radios at this point so I could paint and install them later. I used fuse wire and solder to wire up the various electronic and radio com-

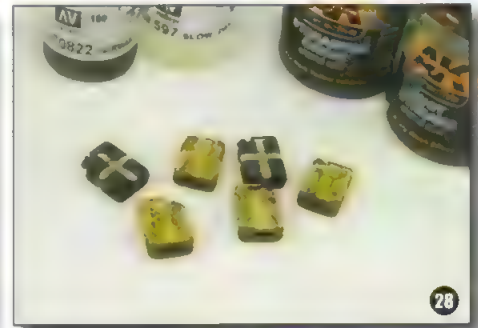
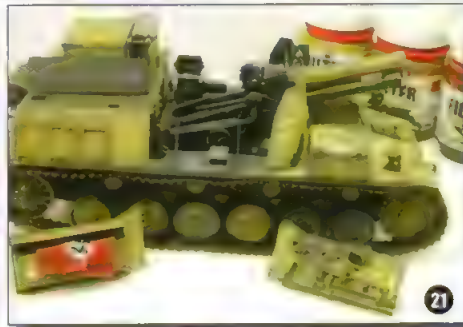
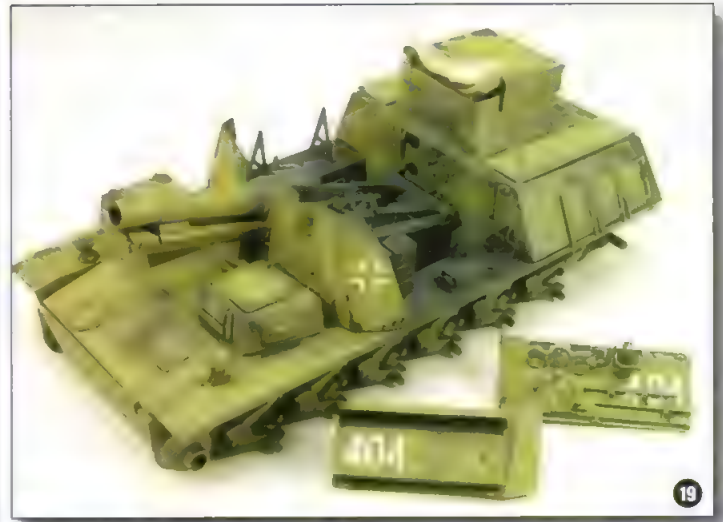
ponents for a little extra detail. Neither headset nor microphone was provided for either radio.

My focus now turned the upper hull parts, fore and aft. The armored driver's box and the storage box to the right were built next. Dragon supplies very nice clear styrene vision blocks and their-actuating levers. It's a pity they can't be seen unless you leave the driver's hatch open but this is not an option as there is no interior detail.

The large engine compartment subassembly (parts P15, P44 and P 19) and the two storage boxes mounted to it came next. Dragon has done a reasonably good job here. It's hard to know what the

real thing really looked like based on the scant references. The rear fighting compartment wall (part P15), presumably had eight brass cartridges stored there. Part P15 has what appears to be six cartridges stowed with two tubes apparently empty, but blanked off. To make things a little more interesting, I opened up these tubes by thinning the styrene from the back of the part using a Dremel tool and burr. Once I can see through the thin film that remains over the opening and I can clearly see the outlines of the tubes, I carefully cut the thin film away with a new #11 blade.

Extreme care was necessary to make sure I



retained the roundness of each opening. Finally, using some round sanding sticks, I smoothed out the openings. Next, I cut equal lengths of Evergreen 7/23rd styrene tube and super glued these inside each opening to represent the tubes that would have held the cartridges. Again, some minor sanding with the round sanding stick took care of any seams. The result was a convincing opening and much more realistic appearance inside the fighting compartment.

At first I was a bit confused by the placement of the plastic and photo-etched screens for the engine. After test fitting, it's obvious the photo-etched screens are glued to the outside of each opening.

Before gluing the two screens in place, I sprayed each with a coat of Tamiya NATO Black as a counter shade.

Next, I built the two large boxes that mounted to the roof of the engine compartment, as well as the mysterious contraption that sits just above the cartridge storage bin. Dragon provides some nice photo-etched latches for these boxes. They greatly enhance the appearance of the completed box. The two stowage boxes were stacked and glued together and then glued to the roof of the engine compartment (part 19). I also added the jack attachment brackets and the spare Jerry can frames. I super

glued thin strips of .010 styrene to the backs of the Jerry can frames so they're slightly raised from the engine sidewalls. This allowed the retaining strap to fit between the frame and the engine compartment wall. The styrene also allowed me to use Tamiya Extra Thin cement. This gave me some working time to align the three frames. Now I had a subassembly that could be painted and weathered as one piece and then slid down into the lower hull. This was not a perfect solution though. Later on I had to glue the joint between the sponsons and the engine compartment but this was the only way to paint and detail the rear interior fighting compartment wall.



I now had several sub-assemblies complete: the lower hull, left and right side wall, rear engine compartment, sIG 33 gun and carriage, forward shields, road wheels and the muffler. All that remained to be built were the Magic Tracks.

Magic Track?

Don't get me wrong, Dragon has done a wonderful thing with their Magic Track and saved me a great deal of time clipping these tiny tracks off the sprue. Maybe I'm getting ham-fisted now that I've passed the half-century mark, but for me gluing indy-track has always been a pain. This always happens: I get the upper and lower runs built up, work

in the appropriate sag—only to have them fall apart. This event seemed to repeat itself several times for each side until I eventually ended up with two complete track runs. That's exactly what happened here. No worries, right? After all, that's why we buy beer—it dulls the pain.

Panzer painting...

Now I took my small pile of sub-assemblies and stomp on them repeatedly until they are the consistency of fine Saharan sand particles. Kidding! Just making sure I still have your attention. Each of the sub assemblies was given a primer coat of Mr. Surfacer 1200. I then cleaned up any imperfections

at this time before going for the first color coat.

I've learned these vehicles were all initially painted panzer gray, so using Hugo Luyten's beautiful Panzer Grey formula from his Sd.Kfz 251/17 article in MMiR 56, I mixed up a batch. To refresh your memory, his Panzer Grey consists of Tamiya German Grey, Dark Grey and Royal Blue in equal parts. This was thinned with Tamiya Lacquer thinner and sprayed over the entire model.

I wanted to create a heavily weathered desert warrior, so I laid down a coat of hairspray over the grey. Using a hair dryer to quickly dry the hairspray, I moved to the next step. For a pop of color, I used Lifecolor "Rojo" thinned with Lifecolor thinner to

spray the fighting compartment floor, creating the red-primer color. A quick pass of the hair dryer and I moved on to the desert yellow color coat. For this I mixed Tamiya Dark Yellow, Buff and Deck Tan thinned with X-20 thinner.

Progressively lighter coats were applied by adding more and more Deck Tan until I was satisfied with the result. The muffler got the Lifecolor Dust and Rust treatment now before being sealed in the hairspray later. Now the paint distressing can commence.

Chips, wear and scratches

With my color coat dry over the hairspray, I began gently removing some of the desert yellow with a small, damp paintbrush. Working in small areas this slowly reveals the panzer grey beneath. For a different effect, I switched over to a brush dampened with Tamiya lacquer thinner. This doesn't remove the paint in chip form; rather it dissolves the desert yellow to reveal the grey below, leaving a convincing worn look behind. I used great care to avoid going through the panzer grey coat. This was reserved for just those areas I thought would have seen extreme wear. The process was repeated all the way around until all the subassemblies had been painted and chipped. The parts were set aside to cure for about 24 hours before the next weathering steps.

Pigments, markings and oil paint fading

This process has been well described in the pages of MMiR so to save time and carpal tunnel damage, I'll just hit the high points. The photos should provide an idea of how the process played out. Before adding the decals, I sprayed a light coat of Future floor wax (now known as "Pledge with Future Shine") to provide a smooth surface for the

water slide decals. The remaining surfaces were also sealed in a dusting of the Future to protect the finish from the remaining weathering effects.

Fading, washes and filters

I took several colors of oils form the Mig Abteilmung line and applied tiny dots of the oil color directly to the model. The colors varied somewhat based on whether I'm working on the interior panzer grey colors or the desert yellow. Once all the areas had received this effect, the model needed to dry for a couple of days before the final filters and pin washes were applied.

Using Mig DAK filter set, I applied each of the three color filters randomly around the model. The gun was given a light pass of Mig's Panzer Grey filter. Various brown, dark and earth washes were also applied randomly around the raised details.

Git 'er done!

All that remained was to put together the remaining subassemblies and do a little touch up painting and weathering here and there. I also needed to attach the Jerrycons, their photo-etched

straps and the track. The track runs were first primed in a mix of Tamiya Hull Red and NATO Black, before applying rust color tones from the Lifecolor Dust and Rust set. Once this was dry, I applied wet pigment powder to each track run. The hair drier quickly dried the pigments and I swiped my fingers over the high spots to leave the pigments only in the recesses. Finally, I used Mig Gun Metal metallic pigment to produce a realistic polished metal effect by rubbing it onto the tops of the track pads with my fingertip. The tracks were then installed around the loose drive sprocket and idler, glued in place and left to cure. Finally the road wheels were glued in place.

That's a wrap

This is a great kit of a cool looking but failed German AFV design. Given the open top nature of the kit and the complexity of the subject, be prepared to do some work. This is by no means a "shake and bake" kit. It's fiddly and tedious at times, but it builds up into a very satisfying representation of this rare Rommel funny. Machen Wirs! 

—Tom Jett

MMiR RECCE

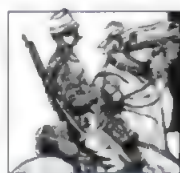
Dragon Bison II, Kit No. 6440, Suggested Retail price \$60.00

AFV Club sIG 33, Kit No. 35148, Suggested Retail price \$40.50

References

Don't Miss: Amongst Friends, M. T. Potholke & P. G. Gable, 11th Avenue, 11th Nippon Range Co., Ltd. Tokyo Japan 5002 8204 4-409-22774. Suggested Retail price \$0.00, if you can find it

Jentz, Thomas. *Rommel's Funnies*. Darlington Publications. Darlington MD, 1997. ISBN 0-9648793-6-0 Suggested Retail \$11.95



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MEDIC!

Resuscitating
the old Peerless
Dodge WC-54



Several months ago I was pondering my next project while looking at my stash and the latest releases from various far eastern nations. Nothing seemed to quite fit what I was looking for. I wanted something that was going to not become a "siege build," but also was a good base for a little extra detail, and be attractive in the end. The simplicity of a wheeled vehicle narrowed the choice, and then somebody listed a Testors boxing of the old Peerless WC-54 along with the Eduard photo-etch set for an attractive price! With the order placed, my next project was born.

The Testors/Italeri boxing of this kit is the same as the original Peerless kit, except that they do not include the figures. Even the decals consist of the same markings.

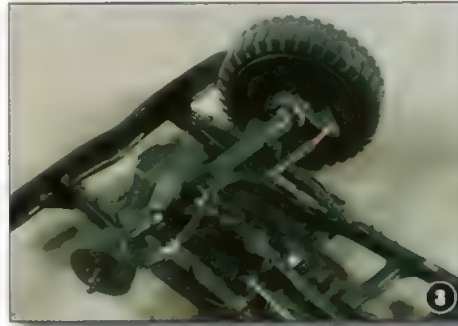
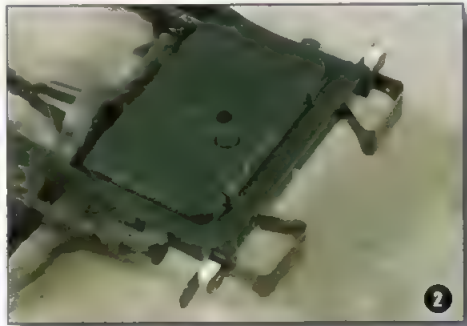
Looking over the parts it became apparent that a few improvements would quickly move the fin-

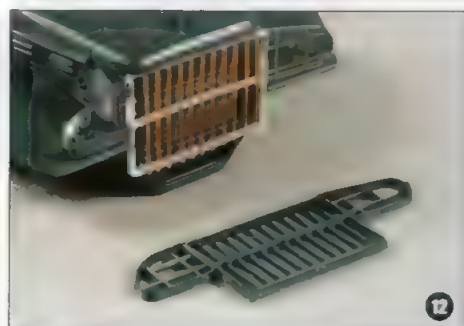
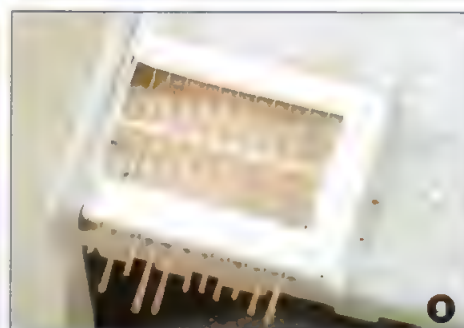
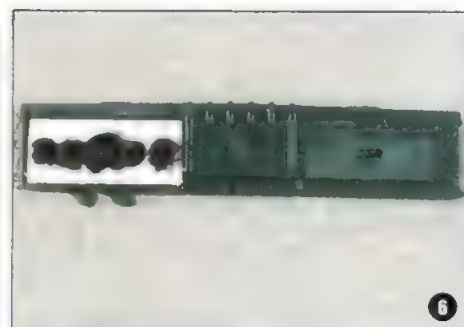
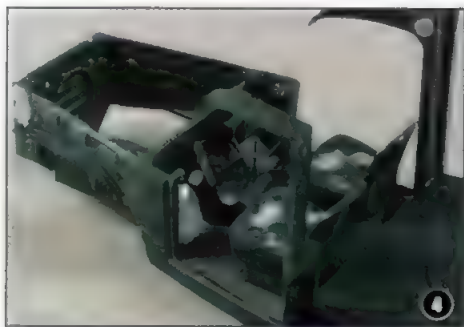
ished kit into the 21st century and stand with pride next to my newer tooled builds. The Eduard set, which is very economical, helped in many areas, but left a couple of key features in need of additional improvement. The first and most obvious was the grill. I had planned on using the outstanding Limes Model product to replace it, but discovered that it was designed for the AFV club kits and was too narrow for this one. Various ideas bounced in my head, and after some study of the real item I figured it would be easy to scratch-build a new grill. The other area desperate for improvement was the dashboard. Here I armed myself with some Archer transfers designed for the AFV Club Beep to tackle that area. Meanwhile I started construction.

Orthopedics first

As with most vehicles, I naturally started with the chassis and suspension. Other than spending

some time cleaning up mold seams, it goes together fairly quickly and is adequately detailed (1). The only substitution was replacing the taillight assemblies and rear bumperettes with parts from the Eduard set (2). Planning ahead a bit, I wanted to show the front wheels turned for a more candid look. I cut the front wheel mounts off directly behind the ball joints and then added some extra plastic to the resulting stub on the axle. Once the glue had dried, this was rounded to replicate the shape of the ball end. The rear of the brake assembly was progressively drilled out until it fit around the ball end of the axle. I then glued the brake assemblies at the angle I wanted, double-checking that everything was square with the ground. Slipping the assembled wheels onto the axles helped in checking the alignment while the glue dried. Turning the wheels also meant adjusting the tie rod as well. The narrow ends of the rod where not





round anyway, so they were cut off and replaced with appropriate lengths of thick copper wire (3).

Head and shoulders

Moving on to the cab, I gave some thought to the assembly sequence. I wanted to give attention to the seams and gaps that would result from the multi-panel construction. I had heard that the front cab side panels and roof could sometimes result in some very difficult gaps. I decided that the forward cab would be assembled first, with the rest of the vehicle build around it. With that decided, Eduard returned with lots of nice details for the cab itself including new floor panels, break, clutch, and accelerator pedals, and new dash board (4). I was a bit disappointed with how the Eduard instruments looked, so opted to adapt Archer's instruments sheet for the Skybow ¾ Dodge (5). As expected, they are beautiful, but don't work at all with the old Peerless mold. No problem, with punch set in hand and some sheet plastic I modified the kit part to fit the Archer instruments. The resulting recesses were painted black (6), and then the transfers applied, and finally some "glass" punched from clear plastic (7). The instruments were masked off and the completed dash set to the side to paint with the interior.

Dental work

Building the outer frame first, and then adding the bars created the grill. The frame is a simple affair, made with some Evergreen strip plastic and Tamiya Extra Thin cement (8). The real challenge came with aligning the 11 bars, keeping them square and evenly spaced. A three-sided jig was

made using square plastic stock that would hold the grill frame and the bar stock. The top and bottom components of the jig were pre-drilled together with the holes spaced at the desired spacing for the grill bar stock. The jig was assembled and the frame placed inside the frame. The bar stock (copper wire) was inserted through the top, across the grill frame, and through the bottom of the jig (9). Small amounts of superglue were used to secure the wire to the grill frame, and then the wire was cut just outside the frame while still in the jig. The jig was partially disassembled to remove the grill, and the grill cleaned up with a file (10). Once installed with the Eduard brush guards, it looks quite convincing. The older grill is also shown for comparison (11, 12).

Abdominal adjustments

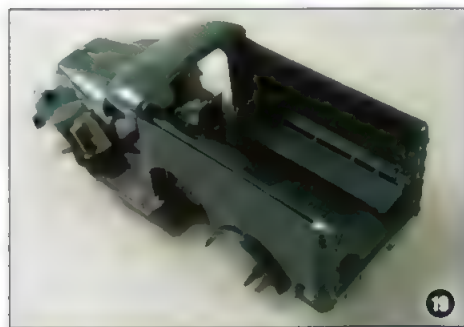
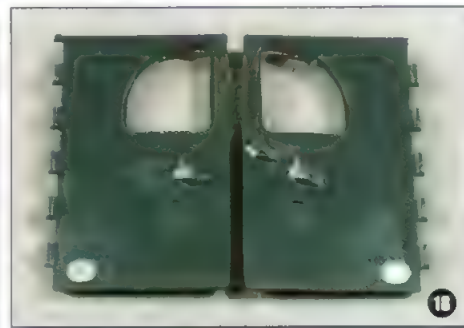
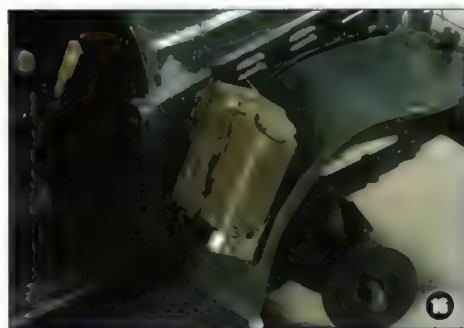
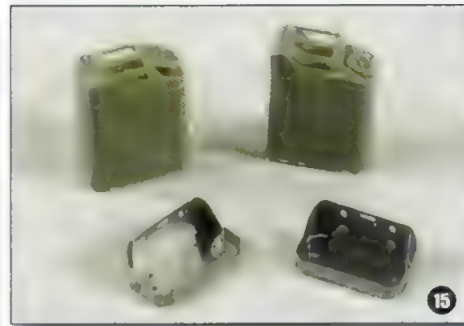
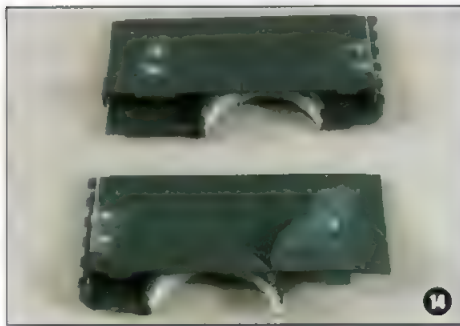
The side panels were assembled, as well as the doors, jerry can racks, and the OVM tool rack. The driver and passenger door molds showed their age with some heavy sink marks in the thick plastic, which was easily puttied and sanded smooth (13). Mounting holes for the litter supports in the rear needed to be filled as well and these were replaced with Eduard etched items (14). Jerry cans from Tasca were mounted in the Eduard racks (15, 16). Eduard also supplied the tool rack with the tools being resin items from Formations joined with a shovel from the Tamiya jeep (17). Nice photo-etched handles for all the doors are in the Eduard set, so these were mounted on small stubs of plastic rod and beefed up with some gap filling super glue applied to the surface (18). While working on the smaller items, I went ahead and added the cab to the chas-

sis, and then secured the side panels. I used some strip plastic to fill in the largest gaps found between the frame and cab, which took care of most of the fit issues. I like to assemble as much as possible before painting, so I felt that I had enough room to paint the interior with the doors and roof left off (19).

Having seen several models on the web with white interiors, I did my own research and discovered that this was at best a stateside or postwar scheme. As delivered, the WC-54 had the same interior color as the exterior: U.S. Army Olive Drab. For the interior, I kept the OD Green to a slightly lighter shade to help the brightness. My usual base coat of Floquil Pullman Green, followed by Model Master Olive Drab, brown-black oil paint washes, and moderate dry brushing with a tan-green completed the base interior paint (20). The leather seats were done using enamels and brown oil paint, and the canvas bench seats were done with Vallejo acrylics. Litters are from the Verlinden MASH ambulance jeep conversion set. A medical box, pillows, and some other related items were dug from the spares box, painted and installed. Some morale improvement was added in the form of an Archer pin-up poster on one of the sides, adding a little point of interest (21, 22). The rest of the Archer Dodge placards were applied to the dashboard, which was installed to complete the interior (23).

And a little plastic surgery to cover the scars...

Once the roof is installed, the nastiest gap showed up between the cab and roof. However, since the assembly of the body is completed at this



step, this is the last gap to contend with and is easy to deal with. However, there should be a joint line, so after filling and smoothing everything over, I replaced the joint by cutting a line with my JLC razor saw. I also reworked the area directly above the windshield, as this is rounded in the kit but should come to a ridge or crease. There is also a ridge of rolled metal missing, and this was replaced with some strip plastic. The mounts for the windshield wipers should also be moved down (24). With the cab doors dry fitted and the window glass was installed and masked, the exterior was ready for paint.

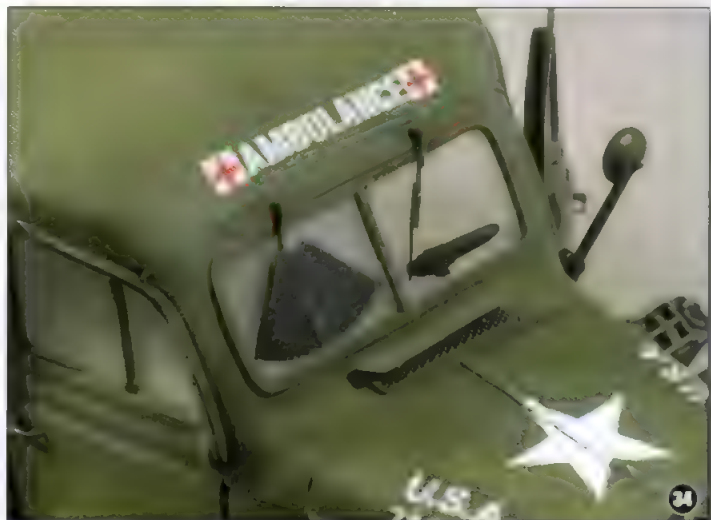
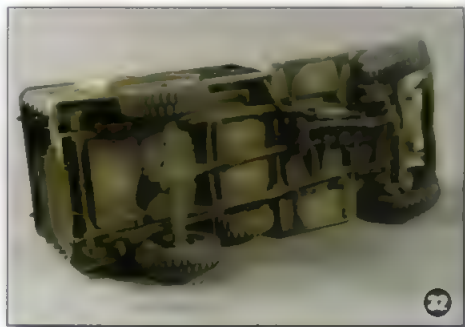
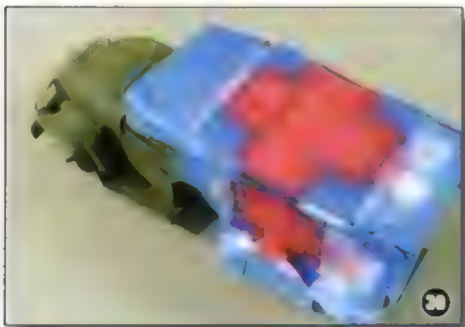
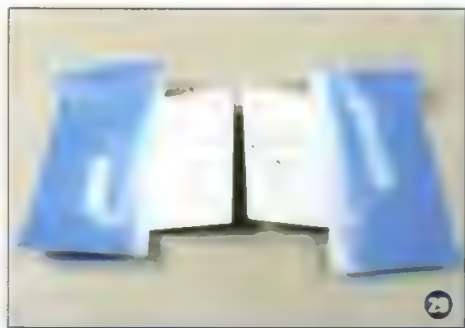
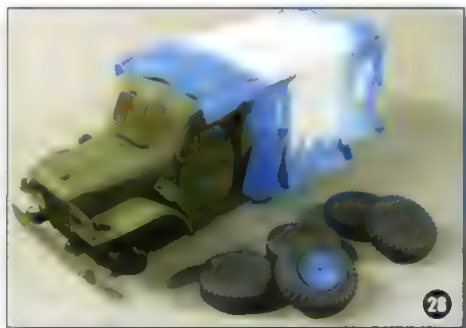
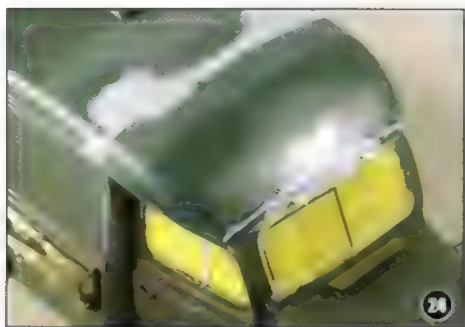
Dermatology time

Much like the interior. I started off with an undercoat of Floquil Brunswick Green being sure to cover all recesses and anything that wasn't green plastic (25). Once dry, a coat of Model Master Green Drab was sprayed leaving hints of the undercoat for some "pre-shade" effects (26). A little SAC Bomber Tan was mixed into the Green Drab, thinned a little extra, and sprayed as a highlight and streaking effect. I kept it subtle, knowing I could always add more contrast later (27).

There was no way I was going to test fate in dealing with the large Geneva cross decals, so these

were masked and painted. The white areas were masked off first, paying close attention to the dimensions to ensure that they were square. I sprayed these in a somewhat random pattern on the top, and vertically on the sides to assist the weathering effect, gently layering the paint to the desired opacity (28-29).

Once the white completely dried, I masked off the red portions using more painter's tape with the ends cut square. Having the tape ends square lets the masking tape take care of some of the work of making sure the inner corners of the cross are square. Dividing the white area into 1/3 portions, I



lined up two adjacent edges of the tape to the 1/3 marks. By doing this, the squared tape edge automatically forms a nice inner square corner for the Red Cross. I repeated the process for all four corners, double checking alignment of the tape by sighting down the edge of tape at the same plane of the masking. Alignment issues become very noticeable from this vantage point. I added a little tape at the end of each bar to form a white border where the red and edge of white box meet. The red was then first sprayed using Insignia Red, then followed with a random spray of the Insignia Red with a little

Afrika Dunkelgrau 42, mixed in for some weathering effects. (30, 31).

Finishing touches

Once the Geneva crosses were done, I realized I needed to deal with the underside, and stippled some acrylic "stucco" texture paste into the wheel wells and underbody to replicate caked on dirt (32). The rest of the kit decals were applied, however if I were to do this again I would probably use some Archer Transfers. I had one of the Caduceus markings fall apart during application, so some well-placed scrapes and chips using Prismacolor artist

pencil covered the damage. Satisfied with the decals, the usual acrylic clear coat followed by select oil paint washes was applied.

For the weathering process, all of the clear window parts were masked off with painter's tape (33). Dry brushing was done using light tan and tan-green oil paint mixes, keeping it subtle. A final coat of air-brushed Dulcote brought the model back to a flat finish. SKP lights were used to replace the headlights and reflectors, and these were applied before the dust effects. The underside and wheel hubs were sprayed with dark tans including Floquil



Foundation followed by Afrika Dunkelgrau for dirt and dust. The dirt colors were then thinned further and worked up the sides of the vehicle to replicate kicked up road dust. The wheel treads received a thinned coat of a like color to the dust and dirt, but using Vallejo acrylics applied with a brush. Satisfied with the result, I peeled off the window masks and cut wiper masks and applied those. A light misting of Dullcote on the windscreen, and faded up the side windows added some dust effects to the clear parts. Final details such as the wiper blades and side mirror were added (34), and that wrapped up this build!

Overall, I found working with this old kit very rewarding. In the sea of new releases and hi-tech kits, I'm reminded not to forget some of these old classics that still hold their own. A few minor tweaks and some TLC will bring out the best of what they have to offer, often at a fraction of the cost of a new released kit! 🛠️

—Andy Renshaw

MMIR RECCE

Peerless/Testors/ Italeri Dodge Ambulance (Testors boxing used for build) The most current boxing of this kit was Italeri 0226, Dodge WC 54 Ambulance

Eduard WC-54 Ambulance 1/35. Item Number 35814. Suggested Retail \$12.95

Archer Fine Transfers Dodge 3/4 Ton Truck Instruments, Placards and Stencils. Item Number AR35248. Suggested Retail \$6.95

SKP Lenses and Tail lights for Dodge WC Beep. Item Number 140. Suggested Retail €6.40.

References

Koran, Frantisek. *Special Museum Line No. 28 Beep in Detail.* Wings and Wheels Publications. Prague Czech Republic 2003. ISBN 80-86416-30-5

Modeling the Dodge WC 54 Ambulance by Andy Renshaw

Cherry Chi-Ri

Why have just one, when you can have two at twice the price?



Okay, here's the history...

Fine Molds is well known for its fantastic Japanese armor kits and I was really jazzed that I got dibs on the Type 5 "Chi-Ri" when it came out. I was able to get background information on my subject, but it took some digging. The kit instructions contain a four-page briefing on the Chi-Ri, but it's all in Japanese. I was able to infer a few things from this though, and also found out more information from different sources: the two books listed in the bibliography, the internet and a gentleman at Fine Molds who corresponded with me.

The Type 5 was one of the last Japanese tank designs in WWII. It was a very large tank meant for defense of the home islands. Design work commenced in 1943 and a single prototype was made before the end of the war. This monster weighed in at 35 tons. The main armament was meant to be the very effective Type 5 75mm anti-aircraft gun along with a hull-mounted Type 1 37mm gun and two Type 97 Light 7.7mm light machine guns. The main armament incorporated an auto loader. This has been stated as the reason for the large turret and corresponding large hull size. Armor plating thickness was variable with a maximum of 75mm on the turret face and glacis, 50mm for the other front surfaces and 35mm on the sides and rear. It was powered by a license-built 600 HP BMW engine and had a top speed of 42 km/hr (28mph). The range is stated as 180km in the instructions. U.S. forces found the prototype during the occupation without the main gun installed and there are several photos of it in this state. The fate of this prototype is a matter of dispute. It may have been lost during shipment back to

the U.S. or it may have been scrapped during the Korean War for its armor plating.

The 1:35 scale Type 5 comes in multiple incarnations. The original styrene kit of this model (and the one built in this article) is FM 28 from the fine folks at Fine Molds. We got our copy from HobbyLink Japan where it's priced at around \$70.00. It's also available from Dragon USA at a slightly higher price (\$79.95). At the time it was released in 2009, Fine Molds also released a barrel set: MG-69, IJA Type 5 75mm/37mm Gun Barrel Set.

This model has since been re-boxed by Tamiya in two forms. Kit number 25107 includes a Fine Molds produced Japanese Tank Crew and belt-type tracks and has a suggested retail of \$95.00. Kit number 25108 includes the gun barrel set from Fine Molds and the link-to-link tracks included in the original Fine Molds release and retails for a whopping \$137.00. Both of the Tamiya releases contain the original Fine Molds parts and the Fine Molds directions that have a short introduction written by Tamiya. Any way you slice it, it seems like an expensive kit until you consider how much fun you're going to have and compare it to the old resin one by Gum-Ka that went for around 300 bucks.

This model seems like a gem right from the start. The box top states that there are 722 parts, but most of them are the tracks. There's a small sheet of photo-etch and some clear parts in there. The rest is very straightforward with the main kit parts beautifully molded in tan styrene (I love this color because it's easy to find dropped parts) and the tracks in brown. Most of the instruction manual text is in Japanese, but the construction diagrams are clear and concise. Everything is properly labeled and numbered. Bonus!

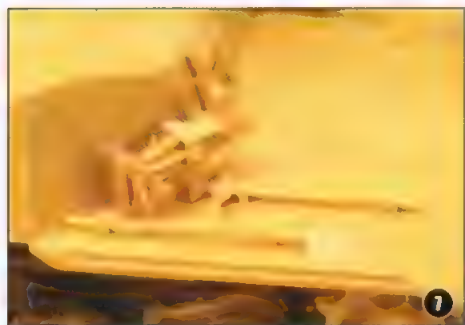
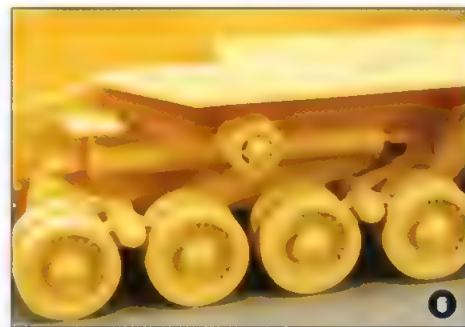
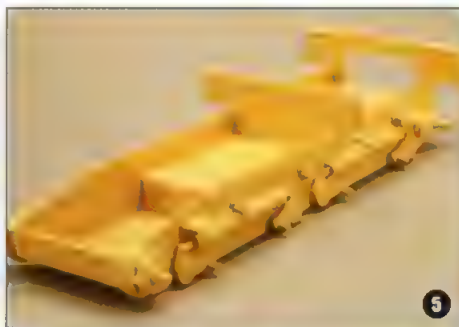
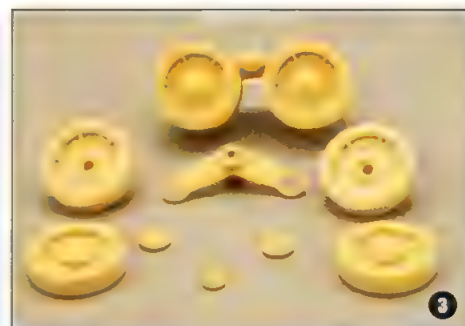
Nothing to it

Early on in this project, I decided I wanted to do a pretty straightforward review without modifying anything too much. There are 27 steps for putting this baby together. This model is really easy to assemble for almost any skill level. I'm just going to hit on some of the highlights and give some pointers for things I learned during assembly.

The first step had me drill some holes in the front fender for the onboard tools. If this had been the prototype, this step would be skipped. There are actually several pictures that show the prototype without the fenders altogether. In the other photos they are pretty bashed up. There is one part supplied to block off the rear engine grill but the two larger forward ones required some sheet styrene. No biggie. I just cut some to the approximate size and painted it black before slapping it over the openings inside the hull.

Next up are the suspension parts. I wanted to pre-paint the inside of the bogie wheels to keep the bare plastic from showing up later. By being careful with the cement, the bogie wheels will spin freely to make painting the tires easy too. Yes, these comments probably seem like baby town frolics, but I've already said that this is an easy model!

Fine Molds was quite considerate in including the fighting compartment floor, firewall, and some sponson filler parts. There are two issues with the sponson fillers. The rear parts (H31 and 32) have grills in them that need to be blanked off with some sheet styrene just like the engine deck. Later on when I put the upper and lower hull together, I noticed that there is still a gap between the sponson fillers and the upper hull sides. If I were modeling



1. The kit comes with some nice clear parts for the vision ports and a small photo-etch sheet that is mainly for the muffler grill. **2.** The wheels and drive sprockets are crisply molded and have nice detail. There are poly caps for the rear idler and the drive sprocket. **3.** The multi-part bogies are a snap to put together. Careful cement application will leave the wheels spinning freely. **4.** Here we can see the Vickers type suspension details. All of the parts are well molded and go on just like advertised. **5.** The lower hull tub is a one-piece affair. Fine Molds is nice enough to include a fighting com-

partment floor and rear firewall. **6.** The installed suspension parts. Dee-lish! The track support just to the rear of the drive sprocket minimizes track sag on the finished model. **7.** There is a nice set of tools on the front fender. I love that wacky jack. I hollowed out the handles later after noticing this detail in several period photos. **8.** The hull-mounted 37mm gun 7.7 mm machine gun both include breech detail. This is a plus if you leave the hatches open. **9.** A one-piece tow cable is included if you like. With careful painting, it looks pretty good.

this tank with the hatches open, I would have filled these gaps to keep unwanted daylight from shining through. Since I was buttoning it up, I don't give this a second thought.

The suspension system is the same Vickers style seen on many other Japanese tanks like the Type 1, Type 3 and type 97. It's a breeze to install and everything goes on nice and straight. There are two simple considerations here. It is important that the bogie arms (C31) have a good bond so the bogie assemblies don't work loose and leave off the front drive sprocket and rear idler for now. The tracks are a real bear to install otherwise.

The hull mounted Type 3 1 37mm gun and 7.7mm machine gun both include breech detail that is just fantastic. There is some detail missing from the recuperator housing for the 37mm (parts J11 and 12). There should be four bolts (one on each corner) and an indent around the perimeter of the top of the housing. I didn't actually notice this until after the kit was done and was looking at the identical gun mount on another Japanese tank kit. Oh, well. The mount has limited up and down travel that I left free until after painting.

In step 11 I put the upper and lower hull together. This is where I saw the gap in the sponson fillers

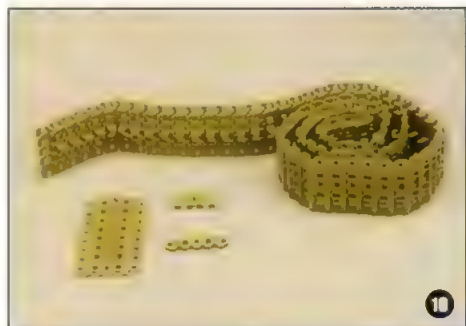
I talked about earlier. It should be pretty easy to close this off with some sheet styrene shims.

I really dug the little photo-etch manufacturer's emblem just behind the front headlight. There's a decal for this emblem and if you line everything up right and added some decal softener, the end result is quite satisfying. I add the details to the hull front next. All hatches in this model are detailed on both sides, but you've probably come to expect this by now. The front tool set is really quite nice, especially that wacky jack that you see on many other models of Japanese tanks. Leaving the driver's visor (H4) loose will make putting in the clear vision blocks easier later. I installed all of my clear parts after painting and weathering. Leave the centrally mounted front headlight off until last as this part breaks off really easily. I broke off and re-installed it no less than four times and in the process somehow lost the little blackout hood (H28). You have been warned. There is a tiny clear lens for this headlight too. Cool. As previously stated, I left this for later. The tow shackle attachment parts (C10) take a little filler putty to make them look right when you attach them to the lower hull front plate.

From here I added the details to the rear hull plate. There is some pretty zazzy detail back here.

The big bad muffler features a photo-etch screen. Fine Molds includes a styrene part (H24) that acts as a folding jig that makes this a cinch. I actually tacked my screen on with a small amount of CA glue for painting the camouflage and then popped it off later and painted the muffler underneath. The clear lens for the taillight (G1) was left of until last. The rear tow hooks (C2, C7) took a little filler around the bases where they join the hull. On the rear deck, you are given the option of using the one-piece styrene tow cable or leaving the retainer array empty. I cleaned up the mold seams on the tow cable and installed it. For a one-piece job, it doesn't look bad at all once it's painted.

The tracks are pretty easy overall. Each track link is made up of two pieces and they are workable, just as advertised. Make sure to get your track count right. While there is some sag between the return rollers, it should not be much as there are metal track guides that protrude from the hull sides on the upper part of the run. Even the addition of one extra link left the tracks looking too saggy. The only real complaint I have about this kit are the small knock-out marks located in the waffle on the outer face of each track link. These are almost impossible to remove. I assembled my track runs and test-fitted



them, but they were left off until after the painting and weathering was done.

The kit really shines when it comes to the main gun and the turret. A fairly complete breech assembly is provided for the main armament and the ball mounted machine gun on the left side of the turret. The prototype photos show the Type 5 without any main armament and a plate over the opening for the main gun. Personally, I couldn't hack building such a nice kit and then not installing that massive gun. The turret itself comes as multiple flat plates that just slide together. Schwing! Nothing to it. The cupola can just be tacked on for painting. I think made a bit of a boo-boo here. I glued the lower cupola half to the turret (B21) and left the upper parts loose so I could install the clear parts later. This resulted in a seam between parts B21 and B22 that probably should be filled. Also note that the commander's periscope on the prototype was not installed so use part B8 if modeling the real version. The only aftermarket detail I added was two antennae. These were actually added as an afterthought during the painting phase. The kit comes with an antenna pot on each side of the turret. I lopped off the little molded on stubs on the mounts and drilled out a hole. A short length of brass tube was then inserted. I took the antennae from Aber's 1:72 scale barrel set for the Maus tank (72L-51) and glued them into the hole in the brass tube on each side.

At this point, I was ready to add some color to my model. The prototype is labeled as scheme 1 in the instructions and is made up of one color, "Parched Grass." A one-color paint job and no main armament... Hmm... Snore. I decided to use the camou-

10. Each link of the tracks is made up of two pieces. The lengths go together nicely and are fully workable as long as you're careful with the cement. **11.** A fully detailed breech assembly is provided for the main armament that includes the auto-loader thingy. **12.** The turret mounted 7.7mm machine gun. One thing I noticed during painting is that the ball mount appears to sit at a slight angle. This is correct so don't try to fix it. **13.** The armor plates of the model include lots of nice casting texture and fine weld beads. **14.** The turret is made up of multiple pieces that just kinda slide together. **15.** The only aftermarket detail I added was the antennae. I drilled out a hole in the antenna pot and inserted a brass tube. This served as a base for the turned brass antennae. **16.** There are some gaps in the hull sponsons that need filling if the hatches are left open. They will let unwanted daylight into the hull. They are invisible except to people with dental mirrors otherwise. **17.** A view of the mocked up tank.

flage pattern on the back page of the instructions a guideline to portray the vehicle as a hypothetical production model, sort of a Jagdpanzer '46 subject. The instructions list a set of colors available from Gunze that I am sure will provide a handsome finish. However, Gunze paints are kinda hard to find, so I chose another option. Camouflage and Markings Number 8 Japanese Armor 1931-45 states that late war tanks often used sand, red-brown and green. The color plates in the book show the sand color looks surprisingly like a dirty panzer dark yellow. I decided to take this idea and run with it.

The basic paint scheme was shot with Tamiya paints. The model first received an undercoat of black brown made from Flat Black and Red Brown. This hides all of the radioactive tan plastic color and provides a nice pre-shade. Next came an overall coat of good ol' Tamiya Dark Yellow. Olive Green and NATO Brown were then applied freehand to mirror the camouflage pattern shown on the back page of the instructions. It did add some highlight shades by adding white to each color, but I tried to keep this rather subtle. A coat of Future thinned 50/50 with water was sprayed on to seal things up.



The markings came next. I sprayed a little more Future on the areas that were going to get decals so that they would be nice and smooth. The decals went on without any problems. Like Tamiya, Fine Molds decals can be rather sensitive to setting solutions. I thinned my Micro-Sol out with water before using it to prevent getting a lot of wrinkles.

Paint chips, scratches and wear were all done next with Vallejo paints: 70847 Dark Sand for the Dark Yellow areas, 70922 Uniform Green for the Green and Panzer Aces 301, Light Rust for the Brown with SS Camouflage Dark Black Brown for the deep wear in each area.

After looking over the model and comparing it to color plates in the Camouflage and Markings Number 8 Japanese Armor 1931-45, I decided to darken things up a bit by applying a filter. I used Mig P241 Brown for Dark Yellow. Streaks and stains were accomplished using artist's oils: Olive Green, Sap Green, Burnt Sienna, Burnt umber, Raw UMBER, Naples Yellow, Yellow Ochre and Sepia.


Painting the smaller details followed. I carefully removed the muffler grill and painted the exhaust with Vallejo Light rust followed by some drybrushing and washes with Burnt UMBER and Burnt Sienna oil paints. The tracks were given a base coat of Tamiya Flat Black followed by Vallejo Panzer Aces 302 Dark Rust. I used AK Interactive's AK085 Track Rust and AK 086 Dark Steel to finish the tracks off. For the wooden parts of the onboard tools I applied a light

tan acrylic paint followed by a glaze of Burnt UMBER oil paint. Metallic effects were achieved using a Prismacolor Metallic Silver colored pencil over a base coat of dark grey. Before adding pigments, I sprayed the whole model with Vallejo Flat to get rid of any glossy spots.

After this, I installed my clear parts and tracks. I drilled out the two handles on the jack just before painting it as they appear to be hollowed out in period photos. For dirt on the hull and running gear I used Mig P034 Russian Earth and P234 Rubble Dust.

I went light on this because I didn't want to clog up all the nice detail on the model.

Wrap it up... I'll take it

Like I said before, this is a great kit. It's really at the top of the heap when it comes to ease of assembly and fine detail. The subject is a bit obscure, but this is a kit you'll finish because it's so much fun just to put it together. 

—Jeff Kleinhenz

MMiR RECCE

Fine Molds Imperial Japanese Army Medium Tank Type 5 "Chi-Ri." Kit Number FM28. Kit graciously provided by Hobbylink Japan. Suggested Retail Price 5700 Yen (Around \$70.00) This kit is also available from Tamiya in two incarnations: Kit numbers 25107 and 25108
Aber Set of Barrels for German Heavy Tank MAUS. Item Number 72L-51. Graciously provided by the manufacturer

References

Japanese Tanks and Armoured Vehicles. Argonauts Publications 2000

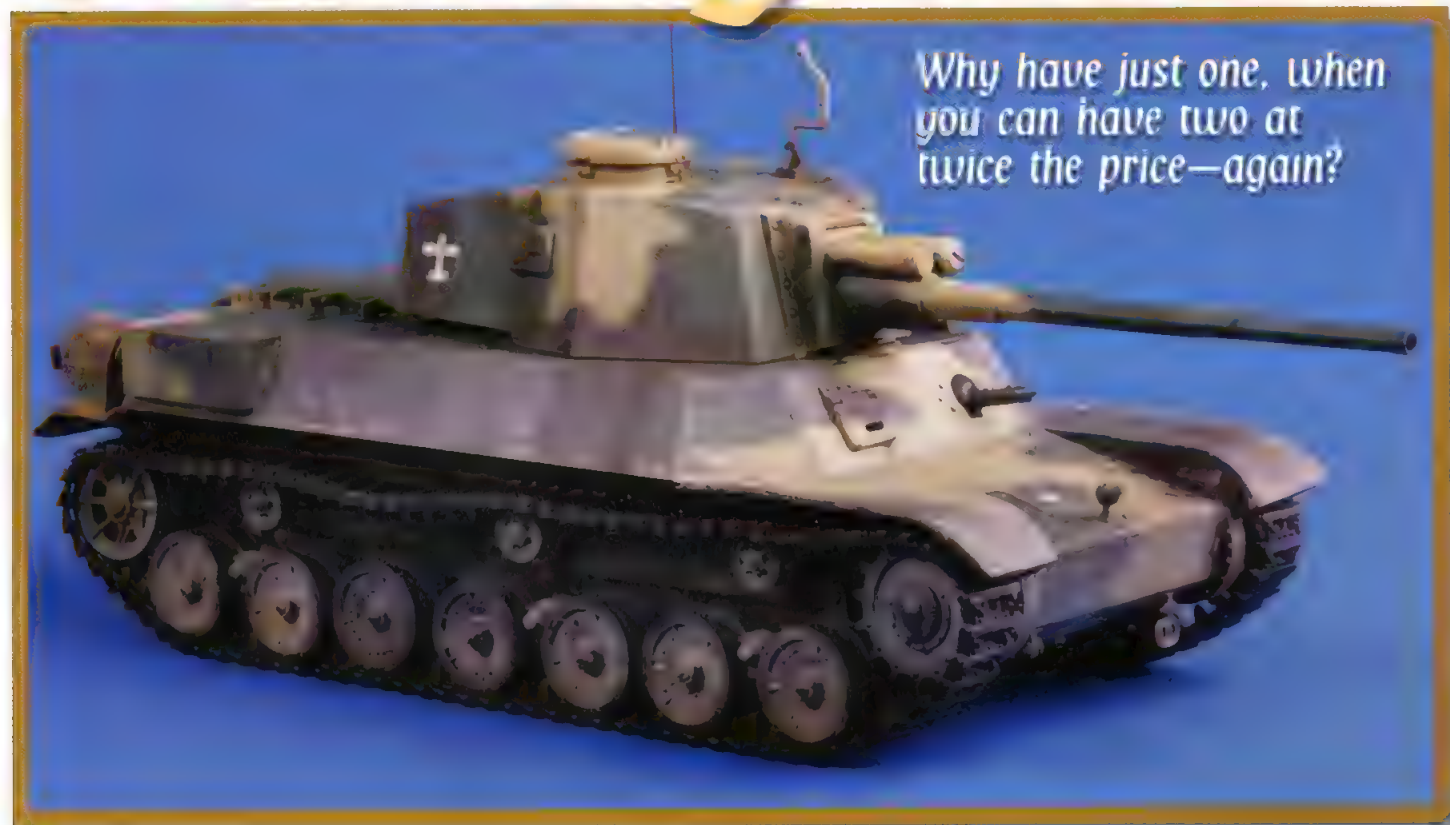
This was a special issue of the now defunct Panzer Magazine. All of the text was in Japanese but it provides some nice line drawings and diagrams

Camouflage and Markings Number 8 Japanese Armor 1931-45 by Wawrzyniec Markowski and Andrzej M. Tomzyk AJ press, 2010 ISBN 978-83-210

Ground Power #186, October 2009 also has an Article on the Type 5

Imperial Japanese Army Medium Tank Type 5 "Chi-Ri" by Jeff Kleinhenz and others

Crunchy Chi-To



Okay, here's another story

The Type 4 program was started as a replacement to the Type 97 Chi-Ha, which was Japan's primary medium tank during WWII. Things got off the ground in 1943 but did not progress very far. Development and production were hampered by material shortages. In the end, only six chassis and two complete tanks were finished with none seeing combat.

Statistically, the tank sounds a lot like a Sherman, T-34 or Panzer IV. It was an all-welded tank weighing 30 tons with a crew of five. Armament (I love that word) was a 75mm gun and two machine guns. Armor protection was between 75mm and

12mm. A 400 HP engine gave it a maximum speed of 38 mph and a range of 160 miles.

Plastic portraiture

Fine Molds makes two different versions of the Type 4: FM-32 IJN Type 4 Medium Tank Chi-To (Prototype Version) and FM-33 IJN Type 4 "Chi-To" (Planned Production Version). The prototype version is the one that was actually built and can be readily distinguished by the curved side armor plates on its turret. I chose the Planned Production Version where the turret consists of angled flat armor plates mainly because I liked the box art better. I'm a deep thinker like that sometimes.

In addition, I managed to snag the two available accessory sets from Fine Molds, MG-72

Replacement Tank Gun Barrel for Type 4 Medium Tank and MG-74 Extra Detail Set for IJA Type 4 Medium Tank. These sets can both be used with either kit.

This one was also easy

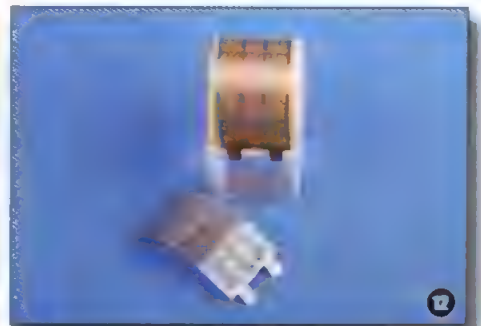
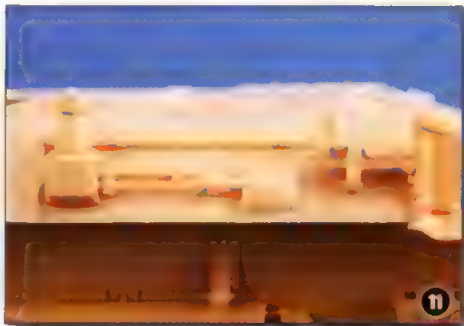
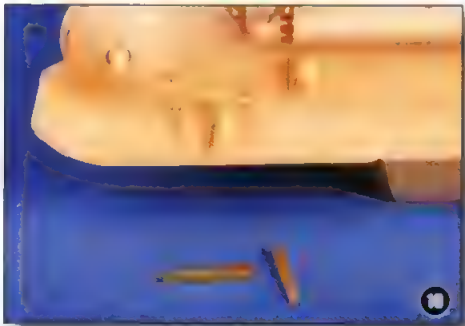
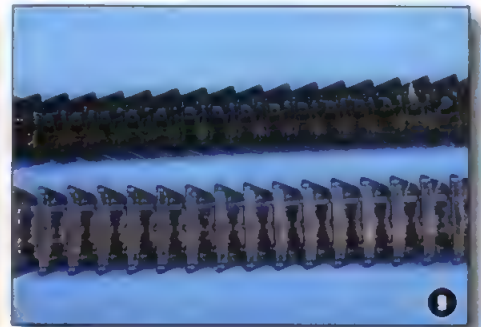
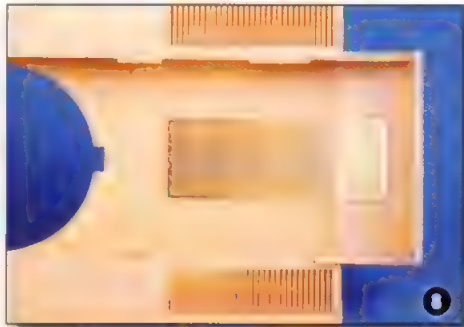
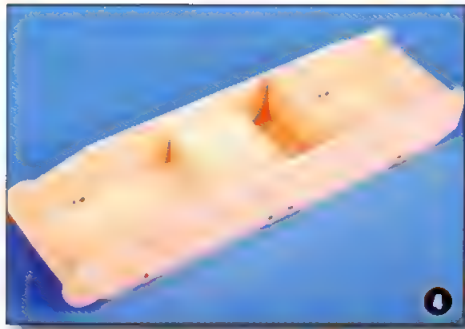
Construction of this model was super easy. It took about 15 hours total to get it ready for paint in all. I had only one minor snag during the entire project. I'll expound on that in a bit.

The lower hull is a flat plate affair that slides together flawlessly. A rudimentary fighting compartment floor and rear firewall are included. The suspension parts all go together smoothly and just as advertised. There are four different types of swing arms for the road wheels, but don't worry about get-



1. I chose FM-33, the Planned Production Version because I liked the box art better. **2.** I also wanted to review the two available accessory sets: MG 74 has photo-etch details and MG-72 is the turned barrel. In the end, the photo-etch sheet wasn't very useful. The

turned barrel was nice though and saved some time. **3.** Decals from both kits are incorporated into one decal sheet. Clear parts for the lights and vision ports and photo-etch muffler screens are also included.



4. The flat panel hull goes together flawlessly. A fighting compartment floor is provided. **5.** There are four different types of suring arms for each side of the suspension. Don't worry; everything is keyed to avoid confusion. **6, 7.** The suspension shapes up through Step 5. Later on, I moved the rear idler axle forward. **8.** Grills for the engine deck are provided in the photo-etch set, but these openings get covered up anyway on the Planned Production Version I built. **9.** The rubber tracks are well detailed but ended up being a bit short. **10.** The photo-etch "Detail-up" set included some fender supports. In the end, I did not use them because they replaced already existing detail

and they can barely be seen anyway. **11.** The tool suite is sweet. Note the huge antenna mount. **12.** The photo-etched muffler grills are included in the kit along with a bending jig. **13.** The engine deck has a lot of nicely molded detail. The tow cable array is really nice but both sides are identical so I only installed one. **14.** The muffler grills in action. The tiny photo-etch toolbox clasps came from the photo-etch accessory set. I also added some weld beads to tighten up the seam on the rear hull plate. **15.** The tow cable array is really nice but both sides are identical so I only installed one.

ting them confused. They are all keyed to fit into just one spot.

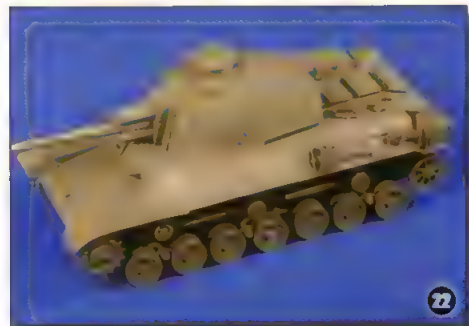
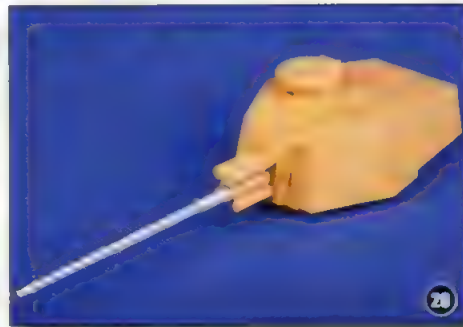
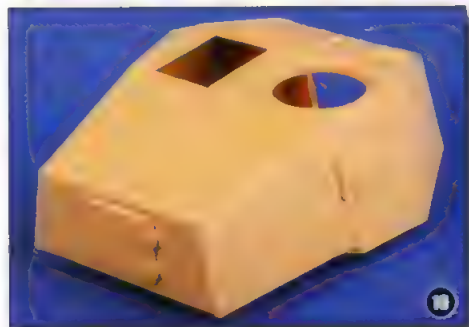
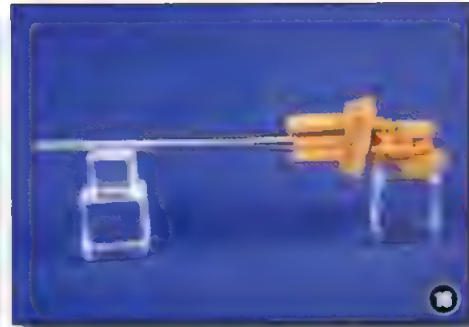
The only thing that needs modification is the rear idler axle. The tracks fit too tightly. The best way to fix this is simply to drill a new hole for rear idler axle (J15) about 2mm forward of the kit position and fill in the old hole.

It is also advisable to paint the backsides of the road wheels dark brown or black to keep the radioactive tan color of the plastic from peeking out. I left off the bogies and other wheels for painting, only tacking them on with some blue-tack to apply

the initial base coat.

From there it's time to move on to the upper hull. I added the photo-etch screens provided in the "detail-up" set underneath the engine deck. These screens were really not needed for the "Planned Production Version" I built because all of these openings get covered later. My front glacis plate part H7 was slightly warped but settled into place with some persuasion and CA glue. I added weld beads around the perimeter with some thin styrene rod. This helped to fill some minor gaps here too. I left the clear front headlight lens (G1) and cover (J37)

off for later. It was kind of a bonus that this kit came with an extra headlight cover. I was able to replace the missing one on my Type 5. Hooray! There is a small oval manufacturer's badge included in the photo-etch set that I installed just to the left of the headlight. It was puzzling that this was not included in the Type 4 kit but was included in the earlier Type 5 kit. I did contemplate using the photo-etch fender supports provided in the accessory set, but there are already molded on supports and you can't see either type when the model is done without a dental mirror and a flashlight. The last thing I did on the hull



16. A fully detailed gun breech is included. **17.** The ball-mounted 7.7 mm machine guns come with a breech section as well. **18.** The main armament is identical to the Type 5 kit. This time I got to use the turned barrel. Schuring! **19.** I added some weld beads using styrene rod in the back of the turret to cover some small gaps there. **20.** The completed planned production turret. **21,** **22.** I used Vallejo Surface Primer 73.610 IJA Kare-Kusa-Iro (Parched Grass) for the base coat. **23.** The green camouflage color is Tamiya XF-13 J.A. Green while the chocolate brown is XF-10 Flat Brown and XF-1 Flat Black. XF-21 Sky was mixed with both colors to make highlights.

was bend up the fenders a little bit by applying gentle pressure with my fingers. The sheet metal fenders on Japanese tanks rarely survived long. Even tanks that were barely used usually show them being bent up.

Moving on to the rear hull, there are some nice photo-etch screens provide for the barrel-shaped mufflers. A bending jig is also included. These screens formed up perfectly after a little annealing. I added the little photo-etch locking tabs to the right side locker as well from the detail set. The pioneer tool set is very similar to that found in the Type 5 kit and therefore quite nice. The styrene tow cables located on the engine deck are well done but identical, so I installed just one. For the other side, I exercised the option of using the retaining clamps empty. The tracks for this kit are vinyl and have decent detail with the only problem being that they are slightly too short. As I mentioned earlier, the quick and easy fix is to move the rear idler axle forward.

The turret was also really easy. As with the Type

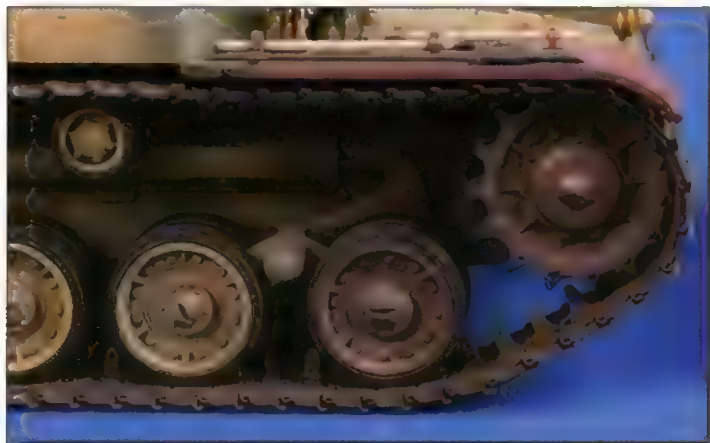
5, full breech detail is included for the main armament and the ball-mounted machine guns. I used the turned metal barrel (MG-72) to save time on the main 75mm gun too. Some weld beads were added to the turret rear plate (C3) from styrene rod to fill some hairline gaps there. The commander's cupola is well detailed and includes a full array of clear vision block parts. The photo-etch set also has some wing nuts to spice things up a bit, but I didn't use them since I closed up all the hatches on my model.

When it came time to paint, I decided to try and emulate the paint colors seen on the built-up example on the side of the box. My base coat was Vallejo Surface Primer 73.610 IJA Kare-Kusa-Iro (Parched Grass) with 73.615 USN Light Ghost Grey added for highlights. The green parts are Tamiya XF-13 J.A. Green and I put in a few drops of XF-21 Sky for highlights. I mixed the chocolate brown using XF-10 Flat Brown and XF-1 Flat Black and again mixed in a little XF-21 Sky for highlights.

Pretty much all of the paint chipping effects

were applied using the foam sponge I scrounged from an Alpine 1:16 scale figure kit. I accomplished chipping in the following sequence: Vallejo 70830 German Field Grey WWII for the green areas, 70872 Chocolate Brown with 70989 Sky for the brown, 73.610 Parched Grass and 73.615 USN Light Ghost Grey for overall wear and finally 70822 German Camouflage Black Brown for the deepest scratches.

Here are the details on the detail painting. The tracks are painted Vallejo Panzer Aces 302 Dark Rust as a base coat. All rubber parts on the suspension were painted Vallejo 70995 German Grey. The tools were painted 70988 Khaki with chips and dark brown oil wash added later. Vallejo 70863 Gunmetal Grey was used for the machine guns. The metallic areas on the tow cable, drive sprocket and rear idler are 70865 Oily Steel. The mufflers and muffler screens were given the full treatment using colors from AK 551, Rust Effect Colors set stippled on with a foam sponge. After all the detail painting was done, I sealed things up for decals and weathering



with Pledge Floor Polish (Future).

The decals are good but a bit thick. Be careful using Solvaset and Micro Mark as it combines with decal glue and eats through the Pledge undercoat. This can cause frosting. Don't be alarmed. Let everything dry out and cover the frosted spot with more Pledge. This works on Tamiya decals too.


When it came time for washes and streaking, I used the following from Mig 502 Abteilung: ABT 080 Wash Brown used for the initial overall wash, ABT 035 Buff for fading effects and ABT 015 Shadow Brown used for spot washes and streaks. A 50/50 mix of Vallejo 70.520 Matt Varnish and water was then sprayed on to protect everything.

Dirt effects were added using a really funky smelling mixture of Testors 1163 Flat Grey and Model Master 2096 RAL 8017 1943 Panzer Schokoladenbraun with Mig P043 Industrial City Dirt and P034 Russian Earth diluted with regular paint thinner from The Home Depot. Chunky dirt effects on the suspension and hull were achieved using a mix of the two pigments and Mig Pigment Fixer. The last step was to apply some

AK086 Dark Steel to the tracks.

Conclusion

Like the Type 5, I heartily recommend the Type 4 kits from Fine Molds for the sheer fun factor. It's a great way to break away from the fatigue you might be feeling from that 1,000-part resin monstrosity

that's been haunting your workbench for the past year. I didn't really find the photo-etch set to be all that useful since most of the detail it improves was hidden on my model. The turned metal barrel is worth the money though. 

—Jeff Kleinhenz

MMiR RECCE

Type 4 "Chi-To" Planned Production Ver. Fine Molds FM-33, ¥3,760 \$47.44.

(FM-32 is Prototype w cast turret)

Replacement Tank Gun Barrel for Type 4 Medium Tank, MG-72 Suggested Retail ¥1200.

Extra Detail Set for IJA Type 4 Medium Tank, MG-74. Suggested Retail ¥1300. Thus has detail parts for both versions of the Fine Molds Type 4. www.dragonusaonline.com

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Dragon: Types 4, MG-72, Japanese Tanks 1931-45 Dragon 100% 475-1 & 475-2

http://en.wikipedia.org/wiki/Type_4_Chi-To

Diagnosis: Diorama

Roberto Reale follows in the footsteps of Shep Paine and Francois Verlinden to create a stunning diorama set in the Ardennes

The idea

When it comes to creating a diorama, I usually have to think about what I want to do for a few months before my "creative direction" gives me the OK. Then I can start work. As some of you may already know, I am the owner of Royal Model. When I start on a diorama, I always get carried away thinking of making accessories specifically for the project. To sum things up, all my projects are conceptual designs that frame my work with photo-etch and sculpting buildings, figures and small accessories for Royal Model.

Apart from the Academy M10 and Tamiya Jeep, almost all the other elements were either from my own Royal Model line or were made from scratch and soon will be in production.

The ruins

I have wanted to build a diorama set in the Ardennes for a long time. My initial focus on this project was on the creation of the large backdrop building. The first step was to make a mockup of the building (1).

The walls, floor pieces and large chunks of rubble were made from foam board. This is typically used for insulation in homes. Several different thicknesses can be found and it is ideal for creating structures. Adding the stone texture to the walls and interior floor pieces was

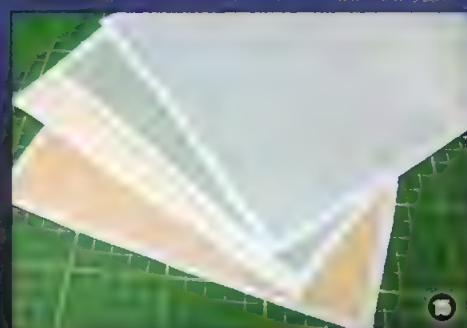
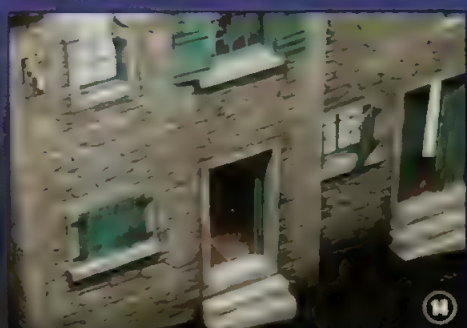
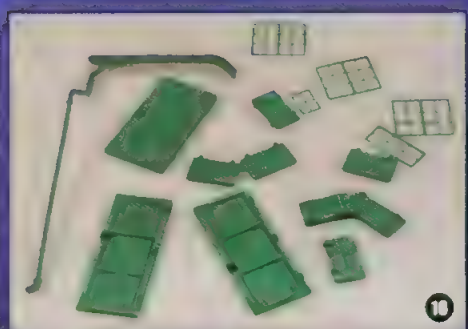
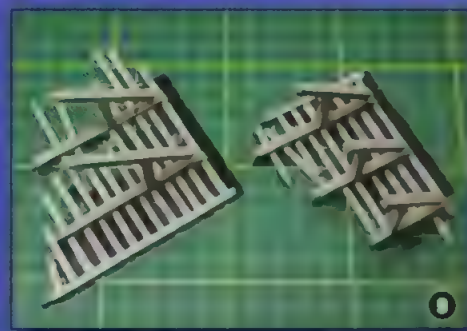
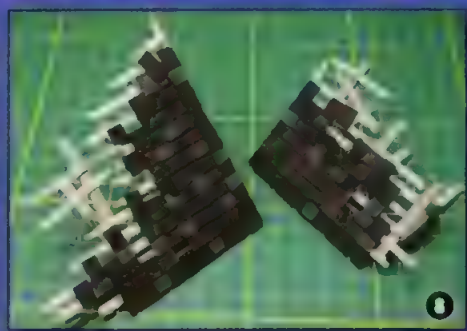
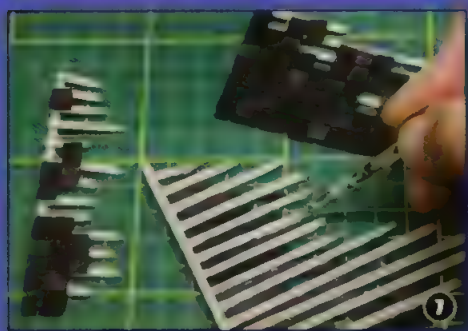
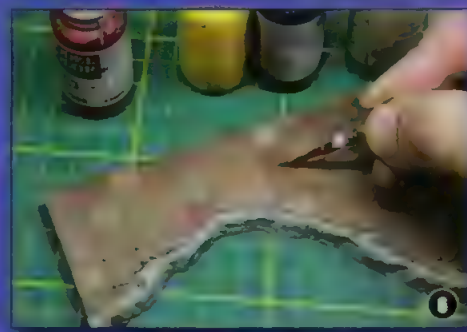
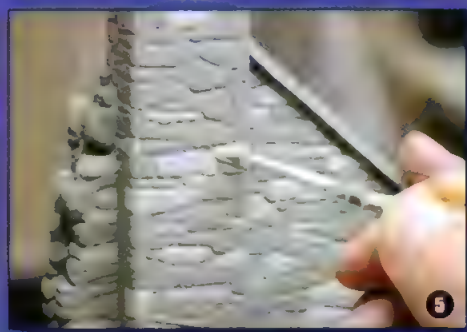
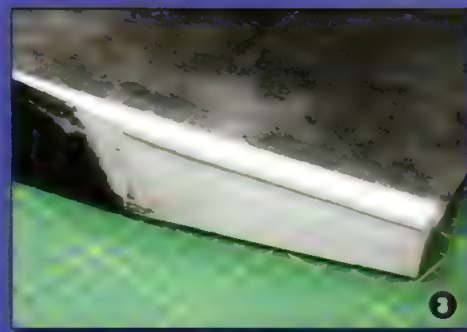
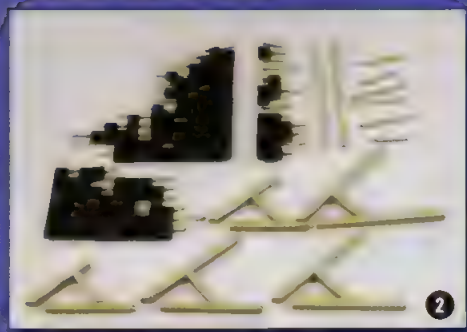
t tedious but I think it was worth the effort. The doors, roof pieces, shutters, window frames and gutters were all made with plastic stock. The roof elements were made from bass wood and pre-cast tiles (2). The chimney pipes on the tall chimney are turned aluminum. The small wall on the forward edge of the roadside was made from a block of plaster (3). Before actually using these items, I

made plaster casting molds for the building and resin molds for the windows and other accessories.

I used Tamiya acrylics to paint the building. The base color is 80% XF-57 Buff and 20% XF-54 Dark Sea Gray applied with an airbrush. The individual stones were then hand painted darker and lighter shades of the base color. The window eaves and steps were painted with the basic color with the addition of 30% XF-2 White (4, 5). The individual tiles for the interior floors were given the same treatment as the stones on the exterior walls, with each one painted in various earth tones using Vallejo acrylics (6). The wooden roof frame was painted gray and the slate tiles a combination of black and dark grey (7-9). The other elements such as the doors, window frames, shutters and gutter assembly were painted a blue grey and then weathered using a light grey (10, 11). All of the painted components can be seen prior to weathering in Photo 12.

A wash consisting of white spirit, linseed oil, burnt





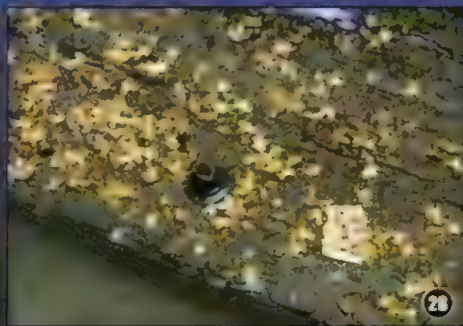
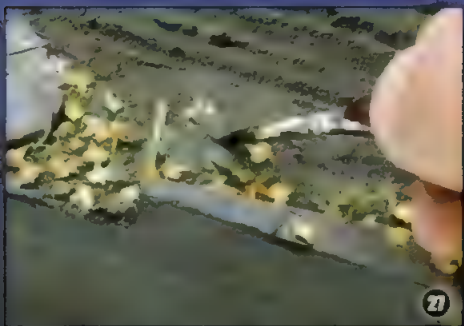
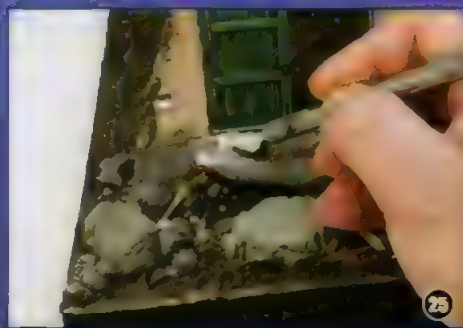
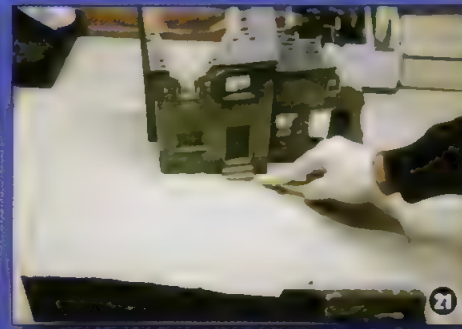
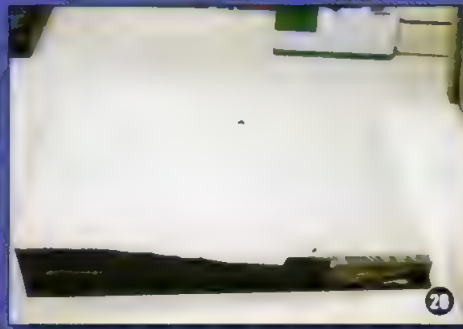
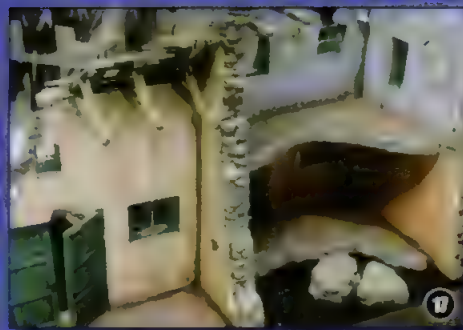
sienna and black was applied over the entire building with a large brush and the excess removed with a cloth (13, 14). When the basic painting was done, the same wash used on the building exterior stones was applied. Because the wash tends to darken the colors considerably, I used a lighter base color to start with. Due to the

linseed oil in the wash, I gave everything 24 hours of drying time before proceeding with a light dry brush. I made wallpaper by taking patterns from the Internet and creating several sheets in Photoshop. These were printed out with a color laser printer and then attached with white glue and water (15). I weathered the wallpaper by adding stains and

made sure to leave the edges ragged where the walls are broken (16-17).

Diorama base, rubble and soil

Unlike most of my earlier dioramas, I wanted to create a little interest by adding a sloped base to create more dimension. The diorama base was



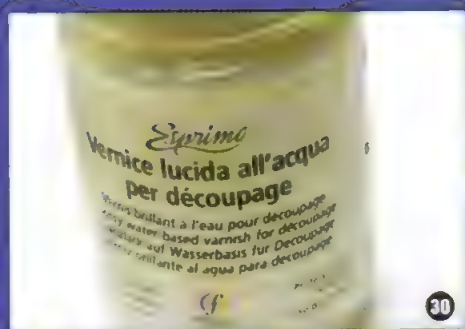
made from painted plywood (16). After test fitting the building, the entire base was covered in modeling clay before replacing the building on the base and blending it in (19-21). I added ruts and track marks before on the roadway before the clay dried (22). The dirt was simulated using a mix of PVA

glue, sand and water (23).

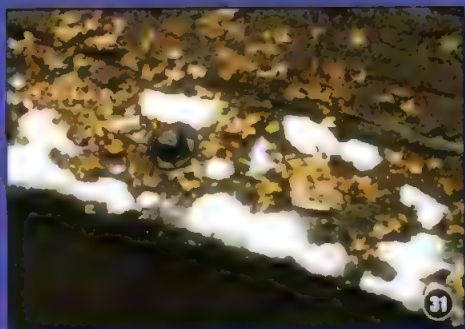
The earth color is a mix of Tamiya XF-64 Red Brown and XF-1 Black applied with an airbrush followed by lighter enamel colors dry brushed on (24).

The smaller rubble pieces are a mix of Royal 005 Rubble (Mid Orient Dioramas) and 015 Mid Orient

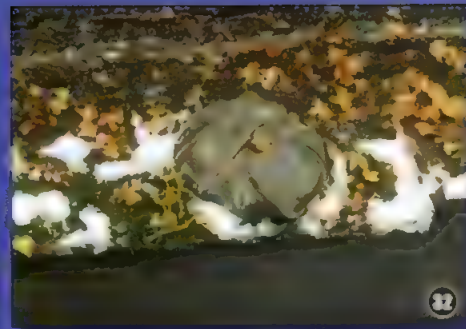
Bricks smashed with a hammer (25). Dead leaves, bits of lichen and some broken twigs were added next for vegetation effects (26). While waiting for everything to dry, I added some human elements such as the crushed fuel barrel, the hat, discarded glove and old newspaper in the diorama foreground (27, 28).



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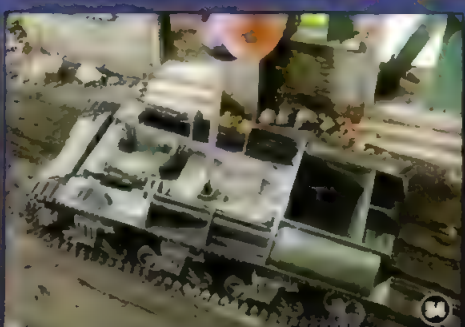
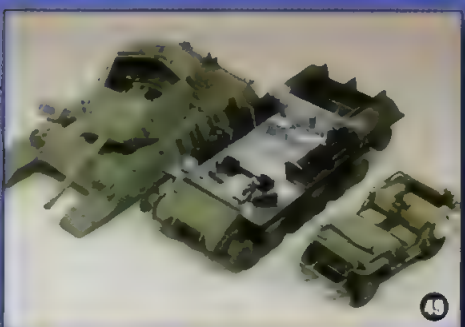
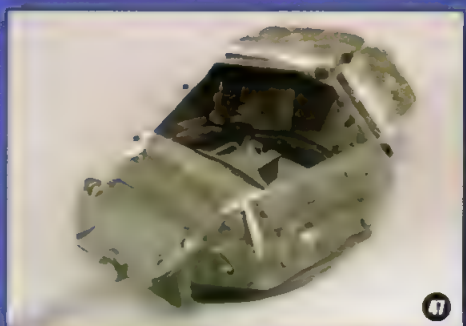
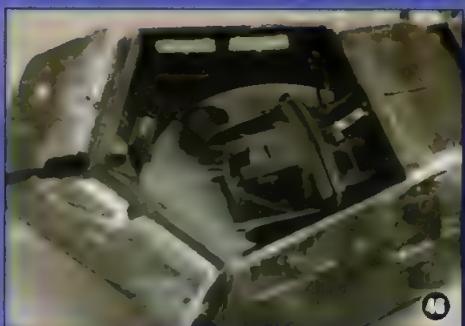
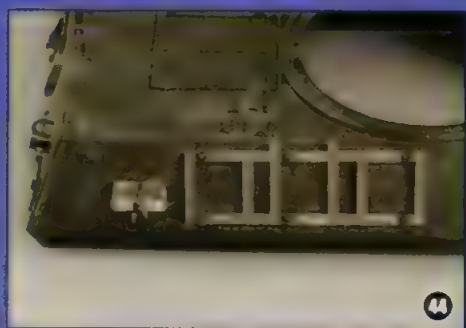
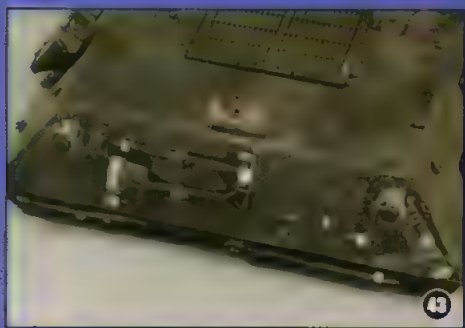
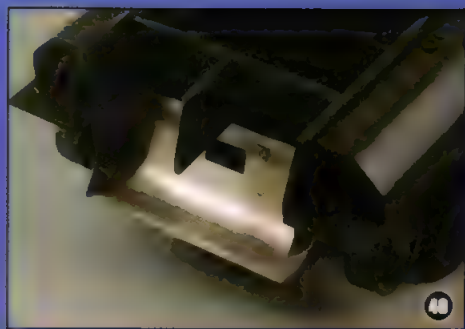
To give the ground a wet look, I used a clear gloss acrylic from the art supply store (29, 30). This was also used to create the puddles with a little XF-64 Red Brown and XF-59 Desert Yellow added here and there for color.

Finally, the snow was made using a mixture of micro balloons and white pigment and fixed using PVA glue (31, 32).

In order to fill out the diorama and make it accessible from all angles, I added interior details to

the roof. Interior elements such as the heater, stove, mattress, couch and toilet are all pieces from the Royal Model range (33-35).

I also added more exterior elements such as the ladder, rake, the wooden wheel and the barrels from



the Royal Model range at this time. A light pole was added on the forward right as a demarcation to help visually limit the scene.

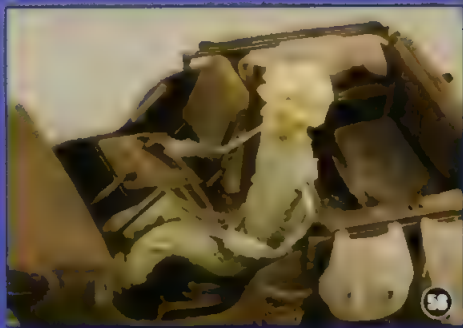
The models

The Tamiya Willys (TA35219) is a small gem that has been around for a long time. Despite this, it

holds its age well. I really enjoy building this kit. I used Royal Model 605 Willys set that contains a two extensive photo-etch sheets in order to enhance the detail. The pictured resin stowage is also included (36-38).

The M10 is from Academy, kit no. 1393. It too is

an older kit. Since it suffers from problems with both detail and shape, I do not share the same love for it as I do the Tamiya Willys. However, it certainly is a good value for its money as it includes a full interior. I used my own Royal Model 350, M10 Microdetails set. Although it does not solve the



dimensional problems with this model, it contains a large amount of photo-etch parts with some resin pieces that refine the details of the model considerably (39-47).

Before spraying on the base color, both models were pre-shaded with a mix of Tamiya XF-1 Flat Black and XF-65 Field Grey (48). The base color for both models is the same: 30% XF-57 Buff and 70% Field Gray. I chose this color because subsequent washes tint and darken the base coat considerably (49). The washes help me arrive at the final color I want as well as provide shading for the basic color. I used a mixture of white spirit, linseed oil, burnt umber black and grey for the wash. Once this was dry, the fine paint chips are added with gray, black and brown enamels. Oil stains were added with a dark brown oil glaze (50-52). After this I applied wet pigments to create mud (53).

The M10 and Jeep were added after the diorama base was finished. To give the M10 a greater sense of weight, it was secured to the base with a large screw

(54). Once the models are added to the diorama I add mud to the wheels and tracks of each vehicle.

In order to add some realism and dress things up, I consulted reference photos for adding extra equipment to the M10. These items are available as RM667, M10 stowage set. All of the soft stowage was created out of Magic Sculpt with copies of certain pieces made from resin (55, 56). Other thin metal details were made from photo-etch. The barbed wire is also available from Royal as item 032. All of the stowage items on the Willys and the M10 were hand painted using Vallejo colors.

The figures

Having established the ruins would be the dominant element in the diorama with the Willys and the M10 as complimentary components, I gave a lot of thought as to how to add life to the scene. In the end, I sculpted eight new figures rather than use already available products. The exceptions to this are the dismounted tanker with the Thompson (RM563) on the far right and the dog from RM 662.

When I make figures, the first step is to make a wire armature that allows me to focus on the anatomy and posture of the figure. I use a small photo-etch armature of my own design for the hands (57, 58). Next, the armature is filled out using Magic Sculpt. After the basic anatomy has hardened, I add the final details (59-60). The other figures were fashioned in a similar manner (61). The tanker with the Thompson was painted a few years ago using Tamiya acrylics while the newer figures were all painted with Vallejo. Finally, to add some additional life to the scene, I added a dog from RM662 (62).

As I said earlier, I got a little carried away when it came to this rather basic idea. While the ruined building was my initial focus, the project took on a life of its own when it came to fleshing it out. I was happy that I was able to breathe new life into some old kits by creating some new figures and accessories during the project as well as utilize some of the existing items from the Royal Model line.

—Roberto Real







MMiR RECCE

List of Recce Products listed

RM605, Old Grand House

RM606, Grand Villa

RM607, Palace (Not Listed)

RM608, Grand Villa (Not Listed)

RM609, Grand Villa (Not Listed)

RM610, Grand Villa (Not Listed)

RM563, US Tanker with Thompson Sub Machine Gun (WWII)

RM605, Villa

RM618, German Damaged Oil Drums (WWII)

RM641, Wine Barrels and Farm Accessories

RM642, Farm Accessories

RM643, Wine Barrels with Casks and Drums

RM606, Grand Villa (Not Listed)

RM607, Grand Villa (Not Listed)

RM608, U.S. Military at Fort Worth (WWII)

RM609, U.S. Military at Fort Worth (WWII)

RM610, U.S. Military at Fort Worth (WWII)

RM611, U.S. Military at Fort Worth (WWII)

RM612, U.S. Military at Fort Worth (WWII)

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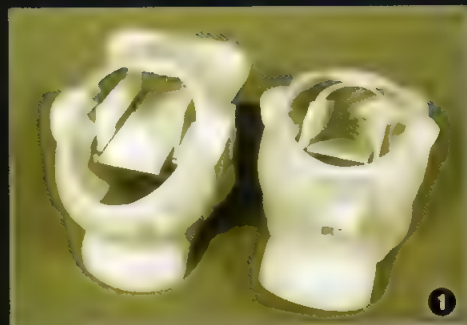


PATROL IN

**Somethin' very different, yet
strangely familiar—armor
techniques in space!**



THE DEBRIS FIELD



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2



3



4

1, 2 For the two Fireball SGs, I used a stock FBSG kit while the other has some Flaccoon parts to make it a recon unit. I used the MechaSkunk FB-Bells that have a clear plastic baffle to allow for lighting the bells up. In order to facilitate this, each FBSG needed a small battery. I found a package of small three-volt lithium batteries on clearance that are perfect for this. They are about the thickness of a AA battery, but not quite as tall. Plus at three volts they have just enough power to run the 3.3-volt LEDs. The photos show the batteries placed in their holders that I constructed for them. The holders sit on a brass tube that goes from arm-hole to arm-hole. 3, 4 This is a large piece of space

debris that will support the two Fireball SG suits. It is constructed from styrene sheet and I-beams, metal tubes and rods. On the exterior, placing cut pinheads into drilled holes made rivets. Mounting portions of the skin with a candle and pressing the soft plastic with various implements added dents and holes. I used the heat-gun again to form the larger panels, using a large bucket to create the curves. The base is a nice heavy block of marble I liberated from an old bowling trophy. Other miscellaneous torn up panels and space scrap will be added later supported by wire to create a floating effect.

Occasionally I need a break after completing, or even during, a large modeling project. To prevent modeling burnout I keep a stash of smaller and relatively easy-to-build kits. I generally refer to these as "Mental Health Kits." I usually pull one of these out to try a new technique or get back into the modeling and creative spirit. This time I pulled out one and then two Fireball SG Space-Type Super Armored Fighting Suits from the Maschinen Krieger ZBY 3000 series (also called Ma.K. and formerly SF3D original). These are an upgraded space-type variant of the popular Super Armored Fighting Suit (SAFS) and were produced by Wave using sprues from the original Nitto kits. They are generally quick and easy out-of-the-box models, despite their age. However, some good clean up, additional detail and TLC will make them really shine.

Now that I had some easy kits picked out, I needed to decide how I would end up displaying them. I like to decide this before construction since the final fixed pose and construction depends on their environment. Since these are essentially space suits, then what better environment to display them than in outer space?

I had seen a few vignettes of Ma.K. space-type suits attached to wreckage, on asteroids or even just stuck on a rod in a flying position and wanted to not only try my hand at it, but also try to improve upon what I'd seen others do. I decided to have the suits flying through a debris field from a destroyed space ship.

Instead of having a brass rod inserted "who knows where," I figured I could position the suits to be supported by the debris via rods hidden in their palms.

Since space has no gravity, no top and no bottom, this set-up gave me endless possibilities as to the positioning of the suits and the debris. I decided to make something that was pretty tall since I have plenty of unused vertical space in my display cabinet. Shelf space isn't something I used to think about when designing a base, but after a couple of huge sprawling dioramas I found that I'm quickly running out of it.

At times I sketch things out before building them, at least very roughly, to get an idea of the final look. More often than not I end up designing things in my head and creating a mental picture of what the end piece will look like. It's never exactly how I picture it, but that's because as I build there are hurdles to overcome, or I have different ideas on the direction I want to take.

The only drawback to these plans is that what starts out being a mental health quickie soon becomes somewhat more involved. However, the idea of the mental health build is to get the juices flowing again and drive my inspiration. That's exactly what happened. Once I'm inspired, the extra time doesn't bother me in the least. What matters is that I'm enjoying myself—right?

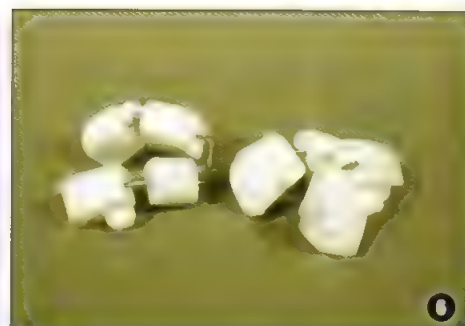
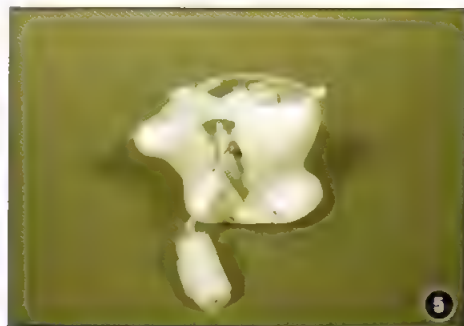
Constructing the Fireballs

Like I said, these kits are pretty nice out of the box, but they can use a little updating to make them

really stand out. One aspect of updating these kits is removing the movable portions of the joints. My method is to replace them with cloth joint covers sculpted from epoxy putty. This also works to my benefit since I'll be fixing the kits into a zero gravity flight pose and using the rigid fixed pose without the kit-joints to hold it in place. Sculpting my own joint covers is great for Ma.K. kits as it allows me to find and fix the kit into a great pose as well as removing some of the unattractive or nonfunctional kit-joints.

I decided to make one of the two kits a stock Fireball SG while utilizing some old leftover parts from a SAFS Raceoon to make the other a reconnaissance unit. The only difference between the two is the addition of a sensor on the front of the suit and an extra fuel tank mounted to the back. Since these parts are made for similar suits, I just applied them to the kit as per the instructions. The addition of these parts makes a nice variation between what would otherwise be two of the same kit while also adding to the patrol theme by having one of the units a recon-specific model.

I started constructing the kits by cutting and gluing together the arm, leg and body pieces. These are the parts that are most likely to have seams to fill and sand. I used Tamiya Cement; both regular and Extra Thin where applicable for joining the seams. I usually glue the entire seam in one session and then move onto other steps while they dry overnight. Once dry, I wet sand the seams using sanding sticks. I make my own by super-gluing

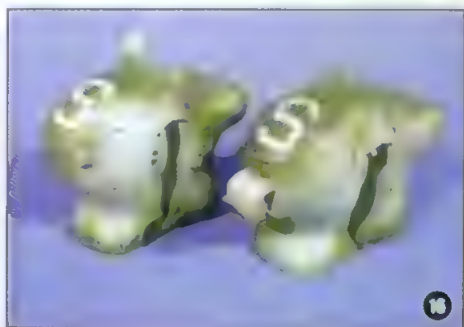
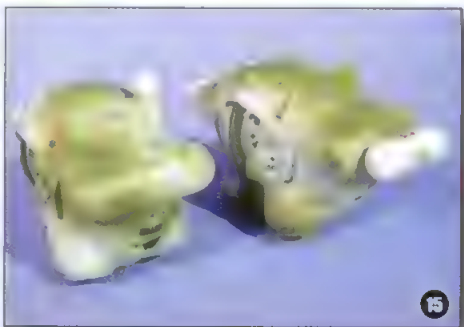
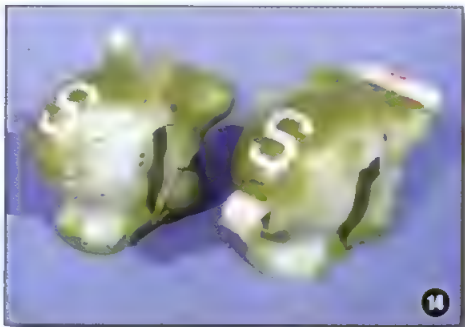
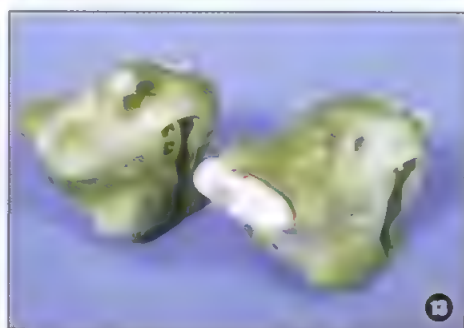
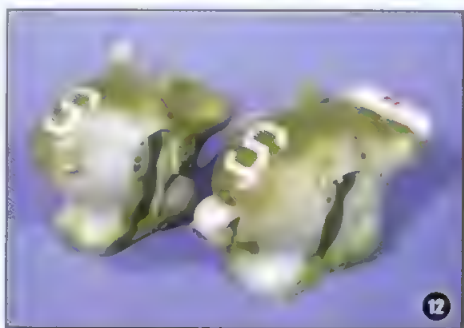
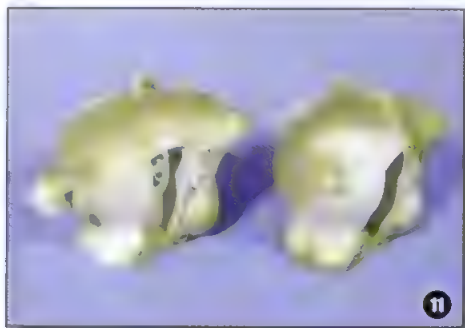
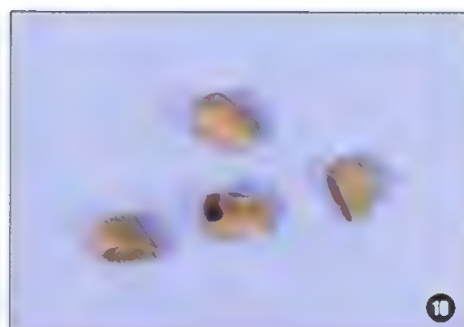
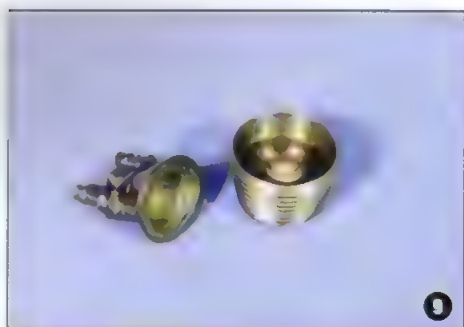
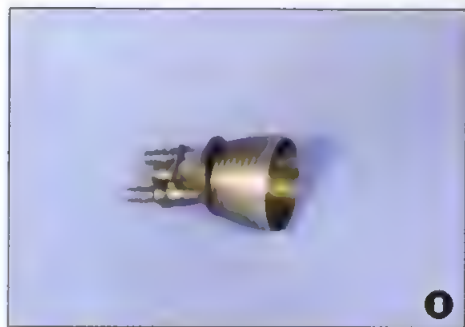


5, 6. In order to give maximum support to the suspended Fireballs, I decided to really over engineer the arm supports. First a single length of brass tubing was mounted inside the body. Inside of this, I fit both arms. A single piece of aluminum tubing (one for each limb) was bent into the desired pose. I decided to use a single tube instead of just pinning the sub sections for added support. Over this aluminum tubing, cloth joint covers were sculpted using Aves Apoxie Sculpt. **7.** Here is the final pose for the Fireball SGs on the piece of debris. A piece of brass rod runs through the hand and into the wrist on one side and through the aluminum support posts on the other giving it fantastic support. What you see here uses no glue! You can also see the sculpted joint covers and the start of my suit armor texturing. For the texturing I dabbed Tamiya Basic Gray Putty on with a make-up sponge until it dried. Then the roughness was smoothed down with sanding film

various grits of wet-dry sandpaper around Popsicle sticks. Usually this cleans up the seams fairly well, but occasionally I'll need to go and fill some very thin gaps with Mr. Surfacer 500 primer or apply some Tamiya Basic Putty to uneven parts. Some sprues in these kits were released over 20 years ago and need a little extra work.

When the seams were sufficiently cleaned up,

I inserted and glued hollow 3/32" metal tubing into the limb parts. Into these tubes would later be inserted and glued the 1/16" metal rod used to position the joints and keep the limbs sturdy while being supported merely by one hand of the suit. To assist with the level of sturdy support needed I filled the hollow cavities between the tubing and inner limb walls with resin. To fill these parts I used every-



8, 9. I finished the MechaSkunk bells by polishing the bare aluminum by mounting it in my drill and buffing with some fine steel wool. Next, I gave both a thin coat of Alclad 2 Jet Exhaust. This was applied right over the bare aluminum with no primer. I've done this before and it works out great—leaving the shine of the aluminum intact. Over that I added a thin coat of Alclad 2 Steel and Pale Burnt Metal in spots to create some random blotching and heat tarnishing. More effects were added later with blue oil paint and smoke pigments. 10. I have no clue why a space unit would have exhausts, but they look cool. After priming these, I used Sophisticated Finishes Rust kit to texture and rust them. I rubbed powdered graphite from a number two pencil over the rust with my finger. Another coating of the rust solution was applied and this blends in the graphite and gives it a little more rust tone. After a coat of prepared Matte Medium to seal it, I added more graphite on a few raised spots, and then added some Mig Pigment Black Smoke inside the exhausts. 11. I gave the Fireballs a camo scheme based upon a drawing from a Ma.K book. I started with airbrushing on a

light-greenish beige color to all of the parts. Then I sprayed a slightly darker green in spots to build-up the effect. After that, a light blue was applied randomly. I applied the darkest green camo as the final color. The result is a nice mottled and discolored looking camouflage. 12, 13. A gloss coat of Pledge was applied then the decals were applied. Before painting the white highlights, liquid mask was applied with a sponge to allow the base-camo chips to show through the white paint. 14, 15. Here I am just about finished chipping the Fireballs. I used the traditional fine-brush method, as well as sponges to apply the chips. I figured that wading through a zero gravity debris field with scrap metal hurtling by would lead to a lot of random scrapes and dings. Before chipping I applied a satin coat of Pledge. 16, 17. Here are the initial results of the discoloration of the Fireballs and wreckage using oil paints. At this point, the effect is subtle and in the case of the Fireballs not very visible in the photos. I exaggerated the look in the wreckage to make it look more aged and beat-up. Again, while the exterior would not rust, some would form on the interior due to humidity and oxygen

one's multi-purpose friend: duct tape. The duct tape was applied to one open end of the limbs to prevent the resin from seeping out the other side. In some of the limbs I did not insert the tubing first, but instead opted to drill out the resin and add the tubing later. I did this on a case-by-case basis depending on the complexity of the parts.

In order to give maximum support to the suspended Fireballs, I decided to really over engineer the arm supports within the body. I mounted a single length of brass tubing inside of the body in between the arm joint holes. Inside of this tube, both arms will later be fitted and glued. I inserted and glued a single piece of 1/16" aluminum tubing (one for each limb) through the resin-filled arm parts then bent them into the desired pose for each. I decided to use a single tube instead of just pinning the subsections for added support. Individual pins might rotate later making the suits appear to sag, while a single piece will hold its bent shape. The legs didn't need as much support since they wouldn't be holding any weight. Therefore I just filled

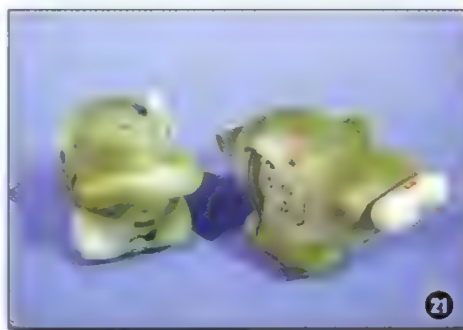
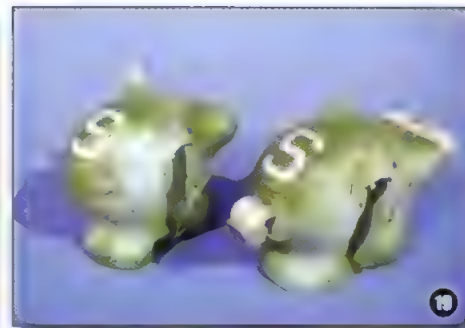
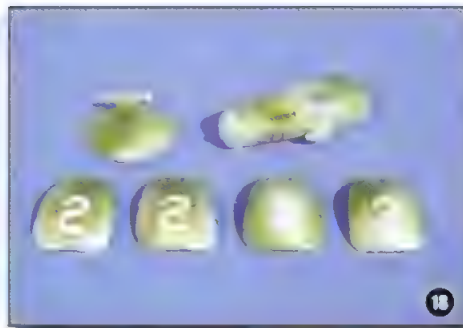
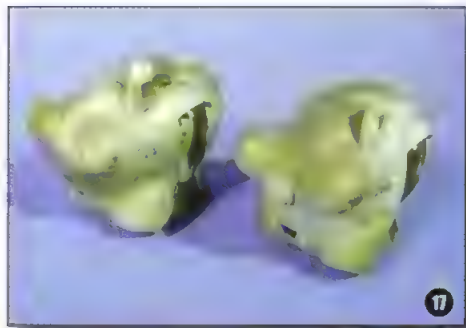
them with resin and pinned them into their poses using 1/16" copper wire.

Over this aluminum tubing, cloth joint covers were sculpted using Aves Apoxie Sculpt, which is a two-part epoxy putty. Once mixed, it's like working with soft clay and is great for sculpting or the occasional gap filling. Aves is similar to Milliput or Magic Sculpt, but in my opinion easier to work with and much smoother. To create the covers I rolled out "snakes" of the putty and wrap them around the joints. This gave me some bulk to work with and applied the putty evenly around the joint. I then used dental tools to sculpt the folds and creases of the fabric into the putty. Water will help the tools glide over the putty and a soft wet brush can also be used so smooth out fingerprints and other slight imperfections. The putty is workable for about 30-45 minutes and cures hard in a few hours so I only mix up enough for a few covers at a time.

A friend of mine at www.mechaskunk.com released a set of machined aluminum engine bells that can be used for these suits. Another reason for

choosing these two kits for my mental health build is that he had been asking me to test them out. The kit-supplied parts have some nasty seams that go across a lot of raised ribbed detail. That makes them very difficult to clean up, so the aluminum option is the better way to go. The bell set comes with two machined aluminum bells and two machined clear-plastic interior baffles for detail. These thruster bells are designed to light up by inserting a 3mm LED into the rear of the clear baffle part. To use these new bells I first glued the original thruster parts together. Once dry I used some scribing saws to cut away the old bell portion. After I carved a little of the inside rim of the severed kit part, the new bells fit right on. The only other modification was to drill a small hole to run the LED wires from the bell, through the plastic thruster part and up into the body.

My next task was figuring out where to place the batteries. Finding a good place for batteries in a model is always a challenge. Occasionally when lighting something I can place the batteries somewhere in the display base and run wires up into the



18, 21. I gave the Fireballs a thin wash of black/burnt umber oils mixed with Turpenoid. This left a nice thin layer of grime but isn't as overwhelming as what would be seen on a ground based unit. The Fireballs also received a final flat-coat since they are now complete. Since they simulate cloth, I painted the joint covers using oils. For me, oils are the way to go for painting cloth. **22, 23.** Let there be light! The bells and batteries are all wired up. The nice thing about the LED being in the translucent portion of the part is that if you don't finish the back of the translucent baffle, the light can still shine through. I experimented with several colored LEDs but all of them were too rich in color. I finally settled on bright white LEDs dipped in clear red-orange. This gave me a great orange glow without being too electronically "amber." The photo shows the bells lit and unlit. You can also see the exhaust covers I recast for use here. It adds a little more visual interest.

Base construction

During the process of constructing the Fireball suits, I was also constructing the base. It was necessary to build both simultaneously since I needed to fit the suits to the debris. They were all part of a whole in order to make a dynamic display.

I started out by selecting a base. This is a black marble base liberated from an old bowling trophy. It's very heavy and has more than enough mass to keep the large display from toppling over. From this base I was able to figure out exactly how tall I could make this display and still have it fit within my display cabinet. Even with the base being about two inches high, I had another foot of vertical space leftover.

Next up was the main portion of debris. This was designed to resemble a former chunk of a large destroyed space-fairing vessel. This large chunk would be the centerpiece in which everything else in the display would be supported in one way or another. I took a long piece of Evergreen styrene I-beam, C.A. glue and an equally long strip of brass inside the hidden groove. This brass would allow me to bend the I-beam and retain its curve over time.

Next were the curved panels of the hull. For these I took large pieces of .040" styrene sheet and heated them with a heat-gun. Once they were pliable, I formed them over a large bucket in order to keep their curved shape while cooling. When cool I damaged the edges with various rotary tool bits and cutters in order to make them look sheared and ripped. A couple of H-beam pieces were then added on the cross-sections for support. On the exterior, rivets were added made by placing cut straight-pin heads into drilled holes. To create additional damage effects, dents and holes were made by heating portions of the styrene sheet with a candle and then pressing the soft plastic with various implements. This made nice holes where debris would have penetrated during the initial explosion or perhaps from

meteors afterwards.

Now that the basic form of the debris chunk was created, it was time to add some brass and aluminum tubing to form not only severed conduits, but also as a support bar to attach it to the base. Holes were drilled into the crossbeams and the bent tubing was glued into place. At this point I was able to bend the lower portion of the tubing in order to tilt the wreckage to be no taller than the 14 inches of clearance, as well as give it some visual appeal. Straight up and down isn't as interesting as something that is naturally askew.

At this point I was able to test-fit the poses and forms of the two suits. I made a hole in a few places where a brass pin would run from the hand of the suit into the support conduit. This would make the suits appear to be grabbing and holding onto the wreckage—making them look as if they were naturally floating by.

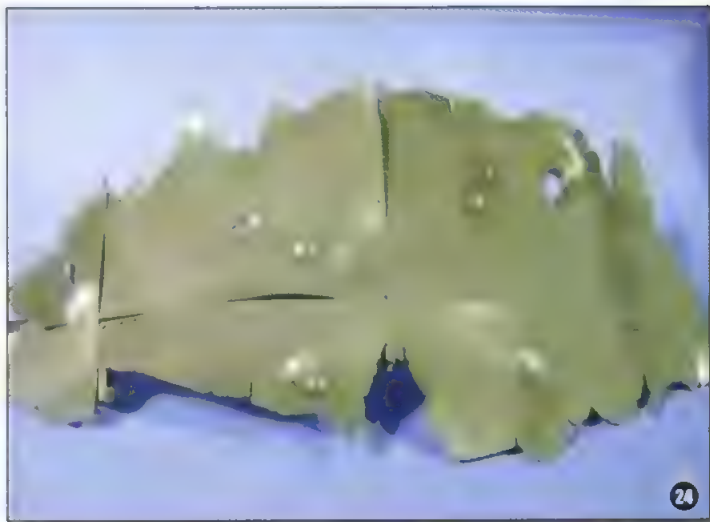
This is much netter than haphazardly gluing them to the chunk without any thought. The end result uses no glue and looks as if the Fireball is holding onto the scrap as it makes its flight through!

Once the suits were added, I was able to create additional wreckage, which would later be positioned to float around the larger chunk and the suits. Some of this wreckage was made from leftover metal rod, styrene sheet and bits damaged the same way as the large panels. Other material is leftover parts from the spares bin. One might notice a few parts from an Academy M10 or a Tamiya M8 and Flak 88 in there!

I also added a plethora of thin steel floral wire, which was used to simulate floating electrical wire. This would form a web of sorts and hold everything up later. All of this debris was attached to the marble base by a bent bolt extending from the base. The main brass support tube simply slides onto the bolt and would later be fixed into place with 5-minute epoxy.

model. However, this time there would be no good space to place them and no good way to hide the wires leading to the model. Luckily I had two things going for me here. The suit of the Fireball has a large hollow interior to place a battery. It's not large enough for a nine-volt or pair of AA's but it was the perfect size for a single small three-volt lithium camera battery that I found on clearance at a closeout store. They're about the thickness of a AA battery, but not quite as tall. Plus at three volts, they have just enough power to run the required 3.3 volts of the LEDs without the need for resistors. This made them perfect for my needs, as there was now no need to hide the batteries anywhere but within the suit. Alternatively, I could have used small watch or hearing aid batteries, but these don't tend to last very long. Inside of the body I used leftover styrene card bits and made holders for the batteries. The battery holders sit perfectly on the brass tube that goes from arm-hole to arm-hole for the arm supports. I was able to use the suit-hatches as the battery covers. These are held on using four small 1/32" thick by 1/16" wide neodymium magnets. These magnets are incredibly strong and hold the covers on tight. This makes removing the covers to switch on the lights or change the batteries very easy.

Before painting, a rough cast texture was applied to the suits. To do the texturing I dabbed unthinned Tamiya Basic Putty on with a make-up sponge until it dried, creating a textured and pitted surface. Then the roughness was smoothed down with some sanding film. I like this method better than my usual Mr. Surfacer texture. The texture is finer and I feel like I have more control.



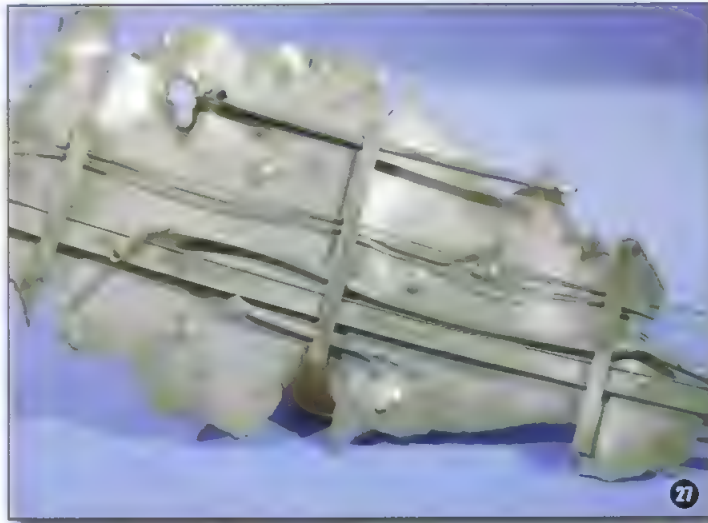
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24. The large hull section has been primed and painted with German Gray. A gloss coat of Pledge Floor acrylic was added to prepare it for the next step, which will be the application of hair spray and a lighter coat of gray to create a chipped surface. I wanted a smoother and easier way to do the massive amount of chips and missing patches of paint on my debris so I decided to borrow the hairspray technique. I primed and base coated my debris with Tamiya German Gray. This is a color I often use for chips. Afterwards I coated it with a few layers of Pledge Floor Polish using my airbrush. 25. When that layer had cured, I sprayed the outside of the piece with some Tresemme hairspray. Two coats worked well enough and it doesn't leave a texture when dry. After the hairspray dries, I sprayed the outer hull with a light battleship gray color I mixed up. I also spray part of a ship number in white on top of the gray. 26. A few hours later I took a small bowl of warm water and a

semi-stiff brush and began to rub the paint off. The water dissolves the water-based hairspray underneath and loosens the top layers of paint. The paint comes off, but not too easily, so I have great control. Toothpicks can also be used on the wet surface to make scratches. I found that brushing a large section with water and letting it sit for a bit helps to loosen the upper paint layers before rubbing. 27. Continuing with the hairspray and chipping process, I added several coats of gloss Pledge mixture and a coat of satin mixture to the debris. Shown here are the parts after the gloss coats and before the satin. The interior chipping can also be seen. For the interior I used a different gray than the exterior. However, both the interior and exterior have the same German Gray as the base. The slightly darker interior gray is used to depict primer. I also wanted the interior a little darker to make the Fireballs pop more without getting lost.

Painting the Fireballs

The Fireballs were given a camouflage scheme based on a drawing on page five of the *Maschinen Krieger BD Manual*. I started off by airbrushing on a light greenish-beige mix of Tamiya acrylics to all the armor parts. Then a slightly darker green was applied in spots to build up the effect. After that, light blue was applied randomly and finally the darkest green camouflage was applied. The result was a nicely mottled and discolored looking camouflage.

Before painting the white highlights, liquid mask was applied with a sponge to leave base-colored camo chips through the white paint. I then used tape to mask off the camo and sprayed on a few thin coats of flat white. Afterward, I removed the masking tape and liquid mask revealing the green chips under the white paint. After the paint had cured, a gloss coat of Pledge Floor Polish was applied with the airbrush. Decals were then applied. Another coat of Pledge followed this. A satin sheen was created by mixing in some Tamiya Flat Base with Pledge in order to prepare it for the weathering steps.

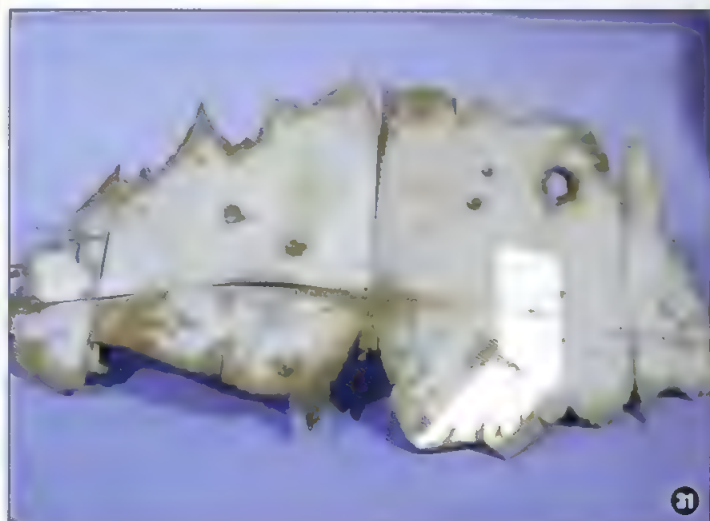
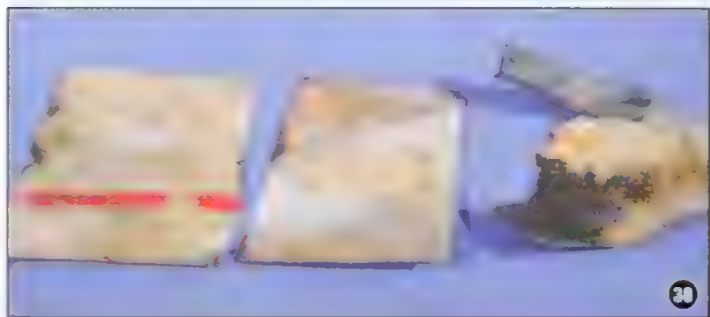
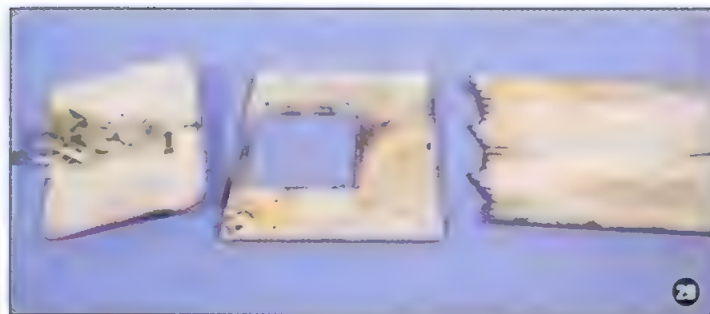
For all the other paint chips on the suits, I used the traditional fine-brush method as well as sponges. I figured that wading through a zero gravity debris field with miscellaneous scrap hurtling by and sharp edges of metal would lead to a lot of random scrapes and dings to the paint.

Next was painting the MechaSkunk bells. The process is as follows: First I polished the bare aluminum bells by spinning them on my drill and buffing with some fine steel wool. Next I gave them a thin coat of Alclad 2 Jet Exhaust. This was applied right over the bare aluminum with no primer. I've done this before and it works out great, leaving the shine of the aluminum intact. Over that I added a thin coat of Alclad 2 Steel and Pale Burnt Metal in spots to make for some random blotching and heat tarnishing. More tarnish effects were then added with blue oil paint and smoke pigments.

I painted the joint covers using oils. Since the covers simulate cloth, I feel oils are the way to go in order to paint cloth. I first base coated the joints in Tamiya Dark Gray and later applied a satin coat of Pledge. I mixed up a similar grey with oil paint and

applied it to the parts. I then took some of that gray and made both a lighter and darker version of it. The darker shade was applied into the crevasses and folds, while the lighter tint was used to create highlights on the outermost portions. This gives the parts some nice depth.

Last up were the exhaust pipes. I have no clue why a space unit would have these, but they look cool and that's what matters. After priming, I used the Sophisticated Finishes Rust kit to texture and rust them. I have wanted to try this product out on an actual model and these small parts seemed perfect for this. If it didn't work, they were easy enough to strip and repaint another way. Over the rust, I rubbed powdered graphite from a number two pencil with my finger. Another coating of the rust solution was applied and blended in the graphite to give it a little more rust. After a coat of prepared matte medium to seal it, I added a touch more graphite in a few raised spots. Mig Black Smoke pigment was added inside the exhausts.



28-29. These are the various smaller pieces of debris that will be either attached or floating with the large chunk. It'll all be connected with wires and tubes and will look as if it's floating as well, caught in a dangerous webbing of wires. I imagine this kind of mission would only be undertaken by experienced pilots as to help avoid being snagged in the debris. I-beam and similar hull chunks were painted in the same primer color as the large interior chunk. Deck tan was used for the parts lining the interior of the vessel before being destroyed, such as non-slip diamond plated floor panels, interior siding, hatches, etc. 30. In this photo I have begun the discoloration of the Fireballs and wreckage using oil paints. The results are subtle, and in the case of the Fireballs, not very visible

in the photos. I exaggerated the look of the wreckage to make it look more aged and beat-up. Again, while the exterior would not rust, some would be able to form on the interior due to humidity and oxygen. 31. The completed discoloration on the hull. The brownish color on the chipped parts is burnt umber. I know rust doesn't form in space, but that doesn't mean the base materials didn't have rust before they were painted. Plus, the brownish color looks a little like heat tarnish from the explosion and offsets and balances the blue-gray. I felt it was necessary from an artistic standpoint more than anything else.

Painting the debris

First up for painting is the large debris hull section. This has been primed and painted with Tamiya German Gray. Afterwards, a gloss coat of Pledge (formerly Future) Acrylic Floor Polish was added to prepare it up for the next step. This will be the application of a technique utilizing hair spray to facilitate chipping and a lighter coat of gray to create a chipped surface.

I wanted a smoother and easier way to do the massive amount of chips and missing patches of paint on my debris, so I decided to try out the hair-spray technique. I had been looking for an easier way to do large chipped areas and this seemed like the perfect technique to try and accomplish this task on the large debris chunk.

Here's how I did it: First I primed and base coated my debris with Tamiya German Gray acrylic. This is a color I often use for chips. Afterward, I coat it with a few layers of Pledge Floor Polish using my air-brush. Pledge is fantastic for sealing clear coats on models. When that layer had cured (the next day) I sprayed the outside of the piece with some Tresemme brand hairspray. Two coats works well enough and it doesn't leave a texture when dry. After the hairspray dried, I sprayed the outer hull with a light battleship gray mixed from Tamiya acrylics. I also sprayed part of a ship number in white over the top of the battleship gray.

For the debris interior I used a different gray than the exterior. Both the interior and exterior have the same German Gray as the base however. A

slightly darker interior gray was used to depict gray primer over metal where the exterior light gray paint is the ship's body color. I also wanted the interior a little darker to make the fireballs pop more without getting lost.

A few hours later, after giving the paint some time to set up and lose its tackiness, I took some warm water and a semi-stiff brush and began to rub the paint off. The water dissolves the water-based hairspray underneath and loosens the top layers of paint. The paint comes off, but not easily. This depends on the amount of hairspray used, so I have great control. Toothpicks and other sharp implements can be used on the wet surface to make scratches. I found that brushing a large section with water and letting it sit for a bit helped to loosen the upper paint layers before rubbing. Last, I gave it another coat of Pledge to seal it all down before additional weathering. The coat of Pledge prevents additional moisture from seeping underneath and lifting any more paint.

The I-beam and similar hull chunks are painted in the same primer color as the large chunk interior. Deck tan was used to paint the parts lining the interior of the vessel before being destroyed. These are the non-slip diamond plated floor panels, interior siding, hatches, etc.

Weathering continued

I applied a few coats of the satin Pledge mixture to the suits and debris to seal them for the next weathering steps. The first of which is discoloration. Discoloration is a technique that adds more varia-

tion to the surface colors making them look worn, and in some cases, tarnished. This was done by adding dabs of various oil-paint colors such as cobalt blue, burnt sienna, white and yellow, and blending them into the surface with thinner.

The brownish color on the chipped hull parts is burnt umber. I know rust doesn't form in space, but that doesn't mean the base materials didn't have rust before priming and painting. Plus, some interior parts would be able to form rust due to humidity and oxygen. The brownish color on the hull also looks a little like heat tarnish from the explosion and offsets/balances the blue-gray. It's more necessary from an artistic standpoint than anything else, since there's not a whole lot of real-life blown-up spaceship debris reference to be found. Not yet anyway!

Most mechanical devices in the Ma.K universe have a telltale layer of grime. I wanted to stay in line with that, but also keep in mind that these are space vehicles and are not wading through oilfields and mud. I gave the Fireballs a thin wash of black/burnt umber oils mixed with Turpenoid. This left a nice thin layer of grime but wasn't as overwhelming as that seen on a ground-based unit.

Finally everything received a coat of flattened Pledge. A little bit of Black Smoke pigment from Mig Productions was added around the damaged portions to simulate soot and burns from an explosion. Overall, I tried to keep the weathering to a minimum. The vacuum of space isn't the dirtiest place around, so there was no need to muddy it all up. It's always good to consider the environment your model will reside in when weathering.



Putting it all together

Let there be light! Before adding the suits to the base I needed to wire up the lights to the batteries. The nice part about the LED is that if you don't finish the back of the translucent baffle the light can still shine through a thin coat of paint on the surface. This makes them look equally nice with the LEDs turned off. I experimented with several colored LEDs but all of them were too rich in color. I finally settled on bright white LEDs dipped in clear red-orange. This gave me a great orange glow without being too electronically "amber." The wires from the LEDs were run up through the back of the bell, into the body cavity and then up through the hatch

where I could attach them to the battery. Lighting them was fairly simple as it was merely touching the two wire-ends to the two battery ends.

Once everything was painted, wired, and weathered, it was time to put it all onto the base and make it look like a zero gravity debris field. I really wanted everything to have the look of floating. Almost as if a wave of debris had billowed up from the base and the suits were surfing though the wave as it curled and crashed back below. All of the debris would look as if it were caught in a dangerous webbing of wires and such. I imagined that miles of cables, tubes and wires which once safely ran throughout the corridors and access panels of the former ship would now act as a spider's web ensnaring anything unfortunate enough to float by.

After attaching the suits to their support pegs, I began piecing it all together with the various smaller pieces of debris that would be either attached or floating with the large chunk. I used thin steel floral wire colored with Blacken-It to simulate wire in the debris. These torn-up wires are the supports to make it all look as if it were floating in space. Large chunks of debris were attached to the main piece or to the thin wires with 5-minute epoxy glue. Smaller parts

were glued to the same wires or to the larger chunks creating layers of flotsam. Another large chunk was attached to the gun-arm of one of the Fireballs to look as if it was being pushed out of the way. This gives it another layer and adds to the zero-G look by having the debris not only massed around the large

center chunk, but also surrounding the two suits as they make their push through the wreckage.

I feel that the end result gives the impression of weightless flight I had hoped to achieve. The black wires make for great support. They're very visible, but not as supports which is a nice effect. It bothers me when I have to use visible supports for hovering or flying models. Even the nicest brass rod or clear acrylic tubing still looks like it was tacked on as an afterthought. This scenario and approach gave me everything I had hoped for and more.

Overall it was a very fun project and good learning experience. Sci-fi subjects lend themselves to a level of creativity that you can't exhibit on most traditional armor subjects. They're great for that much-needed modeling mental health break. Even when they end up becoming more than just a simple diversionary build. To find out more about Maschinen Krieger, visit www.maschinenkrieger.com

—Michael Fichtenmayer

A PEEK AT WHAT'S NEW ON THE FIGURE FRONT

Alpine

Look everybody, Alpine does WWII Germans now! Oh, wait...

35133, SS Panzer Crew Kursk #1 (1) is dressed in the one-piece camouflage coverall issued to SS tankers that was first seen in early 1943. It initially came in an "oak leaf" camouflage pattern that was printed in green colors on the outside and brown "autumn" colors on the inside, but was not truly reversible as the pockets were only on the green side. As usual, Alpine includes two heads, either the Feldmutze side cap or the "oak leaf" camouflage baseball-style cap first seen around the time of the initial issue of the coveralls. The shell the figure is holding is for the 7.5 cm L43 or L48 gun used in late model Panzer IVs, StuGs, and early Jagdpanzer IV models so feel free to use him with any of those vehicles in a setting from spring 1943 onwards.

35134, SS Panzer Crew Kursk #2 (2) is dressed the same as his companion, 35133.

We modeled him with the baseball style camouflage cap but a head with a side cap is also included. The shell he carries is for a German long-barreled 75 as well. You're probably going to want them both, so look them up with this catalog number:

35135, SS Panzer Crew Kursk Set.

35136, Panzer Officer 1 Pz. Div. #1 (3) is a Wehrmacht flavored counterpoint to the SS dudes we just looked at. His greatcoat (Übermantel) can be distinguished as a later model issued from 1943 on because of the large collar. He also has low boots on, another late war feature. The big honkin' Zeiss 10x50 binoculars are a nice detail as is the scarf—custom knitted by Eva Braun. The two included heads feature the officer's cap as shown, or a side cap.

35137, Panzer Officer 1 Pz. Div. #2 (4) is the second figure with the same theme. He wears the Kradmantel rubberized motorcycle greatcoat with the distinctive large circular pockets. He also wears low boots, just like his buddy. Head choice here is between the Bergemutze cap shown and an officer's cap. These two also come as together, just browse around for 35138, Panzer Officer 1 Pz. Div. Set.

16015, Kurt Meyer LSSAH 1941 (5) taken directly from a propaganda photo of Kurt yelling at his kids to wake up and get ready for school. Okay, we're lying about that last part. The photo was actually taken during the capture of Mauripol in 1941 when he was with LSSAH. The portraiture on the face is spot on, right down to those mouthwash commercial perfect teeth. He wears the Kradmantel motorcyclist's overcoat and carries a Kar 98K. The optional head features a side cap with motorcycle goggles but the officer's cap shown here is how he appears in the original photo.

16016 Totenkopf Grenadier (6)

is yet another five inch hunk of resin SS badass. The scoop on this guy is that the 3rd SS Totenkopf served entirely on the Eastern Front, mostly selling ice cream and candy. He is dressed out in early war duds with an M36 field gray uniform being covered on top by a first pattern SS camouflage smock. The Russian PPSH 41 sub-machine gun and drum magazine pouches emphasize the Eastern Front flavor of this piece. The death's head on his collar tab is distinctive for the 3rd SS. Head choice for this battle-hardened kraut is between the camouflage-style baseball cap and a steel helmet with the SS cloth camouflage cover.

Bravo 6

It's a real "one shot, one kill" type deal with **35022, U.S. Army Sniper Team Vietnam (7)**. This two-figure set includes a shooter who is resting his rifle on his spotter's shoulder while the latter plugs one ear. The shooter carries an M21 sniper rifle which is the sniper version of the M14 and is accessorized with a PVS-2 Starlight scope and a Sonic silencer. His headgear is the famous boonie hat and his flak vest is the M69 model that can be distinguished by the collar not seen on the M52 type. His bandana-wearing spotter carries a vanilla M14. As usual for Bravo 6, the OD Green Jungle fatigues, jungle boots and M56 load bearing harness are damn near perfect.

Vladimir Demchenko, sculptmeister of Bravo 6, still has not lost interest in USMC grunts from Vietnam. **35038, U.S.M.C. Bros Shoulder Tet '68 (8)** is a great portrait of one Marine helping his "Bro" to safety. All of the great detail we have seen in other USMC figures in this series is present including the M55 flak vests, grenade carrying pouches on the right hand figure, and the commonly seen gas mask pouches (CS gas was used a lot in the Hue city battle).

Now let's move on to a Special Forces theme. **35043, MACV-SOG (1) (9)** is yet another duo of very dynamically sculpted figures.

Just for the record, MACV-SOG stands for Military Assistance Command Vietnam-Studies and Observations Group. They did hairy stuff like strategic reconnaissance, prisoner snatches, rescue missions and psychological warfare both inside and outside the borders of South Vietnam. Each "team" usually consisted of three U.S. Special Forces soldiers and nine indigenous personnel. Use of NVA equipment was common in order to confuse the enemy. As for the figures, the pointing fellow is obviously American. This figure is really a treasury of obscure detail but some things that catch the eye right away are the cut down Soviet-made RPD machine gun, the STABO rig for quick helicopter extraction, the WW2 era M38 leggings and the CISO indigenous rucksack. The Vietnamese gent wears a NVA pith helmet and carries either an AK47, or the Type 56—a Chinese copy.





His chest rig is a Chinese-made "Chi-Com" ammo vest. He also wears a STABO rig and carries the CISO rucksack.

Wow! Fan-funtastic.

Bronco

Bronco has been doing a really good job of crewing out their British towed artillery kits. **CB35084, British/ Commonwealth Bofors Anti-Aircraft Gun Crew Set (10)** comes with six figures uniformed in the ever-stylish British Serge Battledress. The square canvas haversack on each chest is for a Mk VI respirator. The kit actually only provides five respirator haversacks. The figures come in the standard layout with separate arms, legs, torso and head. Some of the figures have separate hands. No 40mm ammo is included. We thought the heads on this set were a little blobby, but the figures go together with no problems.

35108, British 25 Pdr Gun Crew Set (WWII N.W. Europe) (11) also includes six figures, but that is

where the similarity ends with the Bofors set as these figures are much more handsome. The sculpting, especially the heads, is much better. This set also includes insignia decals. The fit of the separate leather jerkin pieces is good but some filler will still be needed where the parts join. The best figure is the officer. The open greatcoat is a really nice sculpting effort. The point and shout pose of this figure also adds drama to the grouping.

Dragon

Guess what? Dragon did some Germans too. All sarcasm aside, Dragon still sets the standard when it comes to styrene figures.

6580, German Infantry Barbarossa 1941 (12) is an action-packed foursome of early war infantry. All figures are dressed in the M36 uniform with a full compliment of the appropriate gear. We really liked the animated poses, especially the soldier working his rifle bolt and the other firing his rifle from the knee. There are some nice details here, too. The prone NCO using the signal pistol has a flare carrying case to call his very own and the fellow readying a stick grenade wears a bandana as if he is robbing a train somewhere in the old west. Speaking of grenades, this set also comes with an open grenade carrying case (not pictured).

6735, Operation Typhoon (13) is a survey set of representative SS personnel from Russia in late 1941. The best figure is the damn fine portrait of General Paul "Papa" Hausser, who commanded Das Reich during the winter of 1941. The sheepskin coat matches a contemporary photo we dug up and the portraiture on the face is

actually pretty good, too. The other soldiers are pretty much anonymous, but the attention to uniform detail is still there. The second figure seen wears the rather bulky Wachtmantel overcoat very similar to the figures in set 6158, German Infantry in Wachtmantel. The third trooper wears a first pattern SS camouflage smock over the standard early greatcoat. The fourth guy carries an MP40 and since the overcoat was standard issue for Wehrmacht troops, he could easily blend into a pack of regular old infantry or grenadiers.

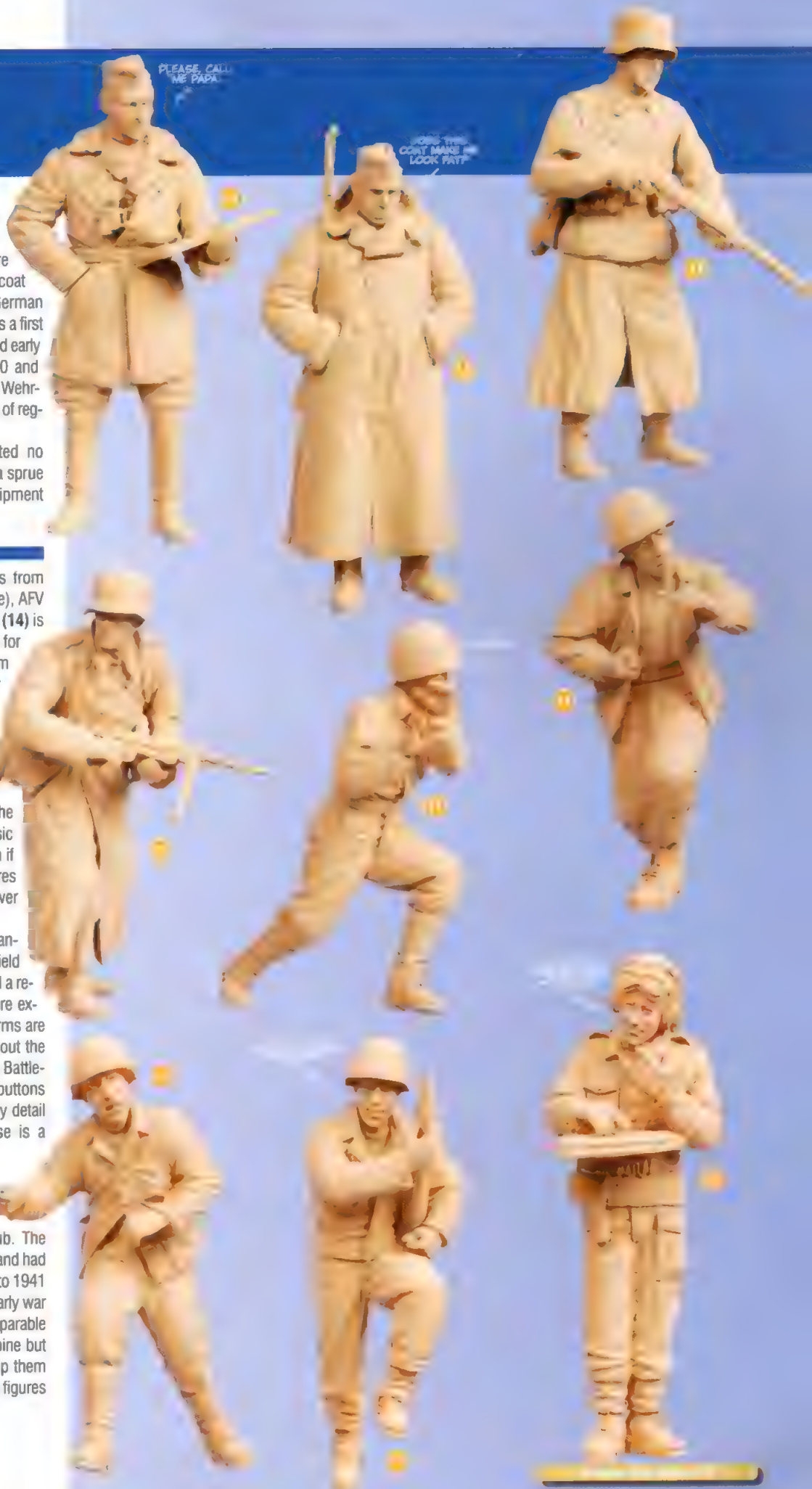
All of the Dragon figures here presented no assembly problems and each set came with a sprue of Gen2 gear so there was some extra equipment left over.

Hobby Fan

Hobby Fan figures complement releases from their styrene little brother (not so little anymore), AFV Club. **707, WWII U.S. Marines Gun Crew (1) (14)** is a four figure set of Pacific theater Devil Dogs for use with one of AFV Club's beautiful 105mm howitzer kits. Of course, they would work for the Dragon kits as well, if that's what you have in your stash. All four figures are posed specifically for their station around the gun and wear standard USMC getup for WWII: M1 helmets with reversible cloth camouflage cover and the M1941 HBT uniform. The M1942 camouflage uniform was the same basic cut, so feel free to put these guys in frog skin if you want. The USMC leggings on these figures are even accurately depicted. They had fewer eyelets than the U.S. Army version.

709, British Valentine Tank Crew (15) is another four-figure set of British chaps doing a field briefing on top of a tank turret. Hobby Boss did a really nice sculpting job on these. The faces are expressive but not goofy—very nice. The uniforms are accurate for fair weather operations throughout the ETO and Mediterranean, being British Serge Battle-dress with sometimes seen with exposed buttons and the trademark tanker's beret. The drapery detail on the second figure with the open blouse is a standout feature.

711, Sd.Kfz 231 Panzerfunkwagen Crew (16) comes with two figures in early war uniforms and is made for those awe-inspiring new eight wheelers from AFV Club. The black panzer beret was called a Schutzmutze and had an integral crash helmet. They were issued up to 1941 and are most often seen in pre-war and very early war reference photos. Hobby Fan figures are comparable in casting quality to other top brands like Alpine but you want to be careful about what you group them with as they are a bit larger than 1:35 scale figures from other manufacturers.



THIS MAP CASE
IS MINE AND YOU
CAN'T HAVE IT

ADD TO SET

Master Box

We regularly applaud Master Box for their variety when it comes to subject matter and for the fact that all of the figures in their sets tend to have some sort of unity of purpose. **3589 U.S. Marines in Jungle (17)** is no exception. The RTO in this four figure set carries the SCR 300 backpack radio, which dates these Marines from mid 1943 onwards. Overall, attention to uniform detail with these four figures is good. The unbloused trousers on two of the four figures are a nice touch. Inclusion of full gear for each Manne, especially the machete for one of the riflemen and the M1903 Springfield sniper rifle scores points with us. The softer plastic Master Box plastic actually comes in handy when it comes to adding the ammo bandoleers. The only down side we see with this set are the heads which perfectionists will want to replace.

Rilch Models

35023, "Road to Victory" (18) is based on a period photo of four famous WW2 British personalities taking a stroll together. The first figure in the set is Field Marshal Bernard Montgomery. The second is Pamela Churchill, Winston Churchill's daughter-in-law. The third is good ol' Winnie the poo himself, smoking on a cigar. The fourth guy is Horrocks who was in charge of XXX Corps during the failed Market Garden operation. Overall quality on this set is good for styrene with the plastic itself and the molding being a little soft.

Royal

These following are copies from Roberto Reale's diorama in this issue. This makes all sorts of sense since Roberto Reale IS Royal Model. **659, US Infantry at Rest with Rifle (19)** wears a pretty standard uniform for any GI before the M43 field uniform started being issued en masse around the fall of 1944. The most prominent features are the M41 OD field jacket and M1938 canvas leggings.

666, M-10 U.S. Crew (20) is a four-figure set that you could use for almost any U.S. tank in the ETO. Present is the crash helmet sometimes worn under the M1 helmet—a common sight as seen on the first two figures. The M41 OD field jacket is again in evidence here on all four personnel. These guys are perfect for cold and wet setting in Northwest Europe or Italy.

674, US Infantry Rifleman (WWII) (21) is uniformed and equipped almost identically to 659. Royal Model figures on the whole are excellently sculpted and well molded, although sometimes you have to fill the occasional small void.

Zvezda

As usual, we are quite enthusiastic about the latest Zvezda figure release. **3618, Soviet Medical Personnel WWII 1943-1945 (22)** comes with five figures in two basic groupings. The first is a female medic comforting the fallen soldier with a head wound. The separate hands on the female figure complicate assembly, but the end result is very effective. Her pigtails are cute, too. Construction of the stretcher party is also complex but is helped a great deal by the stretcher-bearer's arms being molded integrally with the stretcher stays. The wounded fellow can be made to lie down on the stretcher quite convincingly if proper care is taken. Uniform detail and equipment are all very accurate. We liked the use of the 1943 model field blouse variant that has the standup collar and epaulettes, but no breast pockets. This is a great starting point for an after action eastern front diorama.



The manufacturers submit all of the samples for Mini-Men and for this, we are very grateful. The exceptions this time are Bronco, Master Box, Riich and Zvezda, which were submitted by Dragon USA.

M17: RUSSKIE MEAT CHOPPER

One sexy Lend Lease item



One of the sexier Lend Lease items sent to wartime Russia was the M17 Multiple Gun Motor Carriage (MGMC), a halftrack with four .50 caliber anti-aircraft machine guns. The M17 was manufactured by the International Harvester Company (IHC) and looked similar to the often seen and modeled (see MMIR 49) M16 MGMC. The quad .50s were effective against both airborne and ground targets and Soviet ground commanders undoubtedly relished the M17's presence. German soldiers rightly feared the lethality of the .50 caliber Browning machine guns—any hit would sever limbs or burst internal organs: “Ouch! That’s gonna leave a mark!” Americans nicknamed them “meat choppers” in typically gruesome GI fashion.

International Harvester’s halftracks were mostly destined for Lend Lease partners and included the M5 and M9 series. On the surface there seemed to be only negligible differences when compared to halftracks made by the other companies such as White, Autocar and Diamond T. However, since I happen to be among the .00001% of the human population that would even care about or notice differences in halftrack variants, you’re stuck reading through my sometimes ludicrous journey altering the Dragon M16 MGMC kit into an M17 MGMC.

I pored over photos and books and made Internet queries that allowed me to amass a long list of M17 characteristics that differed from the M16. I viewed each item as a self-contained project in the larger conversion process. This allowed me to finish subassemblies singly and not be overwhelmed at the larger project at hand. Once I had enlarged drawings from R.P. Hunnicutt’s “Half Track” tome, I was off to the workbench!

Body by Roy

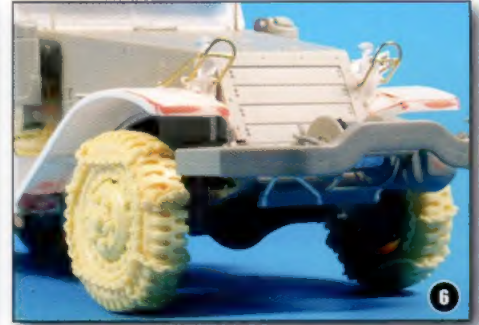
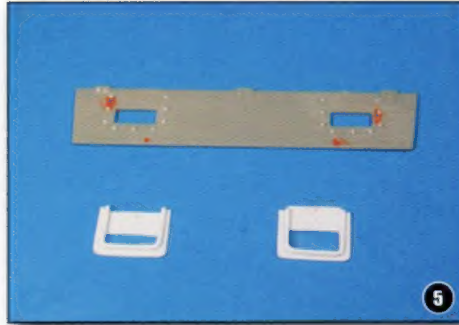
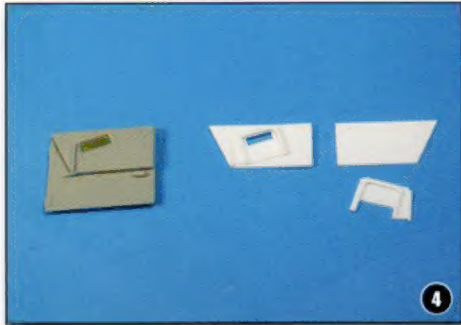
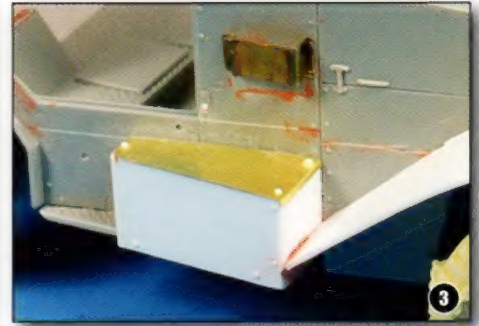
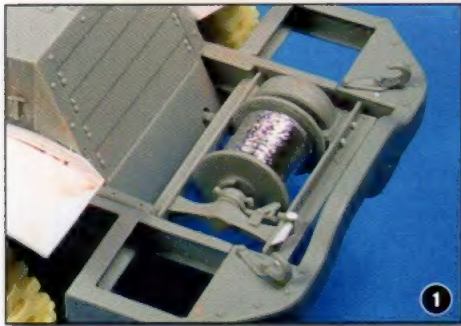
I’ll start by stating the DML M16 kit is a gem (again, see MMIR 49) and it makes one completely forget the noble but now ancient Tamiya M16 kit. The base M16 donor kit is tweaked along the way and I’ll include these details in the write up of the entire conversion process.

Following along with the steps outlined in the DML instructions, I started with the suspension, chassis and front winch. IHC halftracks had a “banjo” type front axle differential. Looking around my spares box, I settled on one scrounged from the rear of an old Tamiya M16 kit that I built as a teenager! The pack rat lives! While the IHC hubs and tires were also different than the M16, I decided I could live without having to detail out the inner side of the front wheels. Besides, I substituted the front wheels for resin chained ones from the now-defunct KMC. DML’s rear suspension is mar-

velous—light years ahead of previous efforts. However, new 7mm rods replaced the incomplete ones on part D22. I also added the lightening holes that are evident on some suspension housings (D32) and added bolts to the return roller mounts.

For the winch, I opted to not use DML’s nylon string and copper chain. To make the cable look thinner, I used a metallic embroidery thread that has the right texture and thickness. Rather than spin a yard of this onto the DML winch spool, I added a spacer cut from a section of styrene tube. I covered the tube once with thread and voila—I have a fat spool of cable! Some smaller chain (again from my spares box) was secured onto the kit-supplied hook. Holes were drilled to the bumper as seen in photos and missing bolts were added. Three missing support braces were added below the front bumper to finish off the winch detailing.

Moving to the front half of the halftrack body and driver’s compartment, I filled in some panel lines and altered some of the bolt patterns, scraping and scribing as needed. The M17’s jerry cans are mounted about three millimeters higher than the M16. As DML lazily chose to depict the jerry can mounts as big slabs, I removed the blobs and filled the holes before adding new mounts from an old Eduard M3 halftrack photo-etch sheet. The IHC vehicles have a larger battery box that I built up



1. For the winch I used a metallic embroidery thread added over a spacer cut from a section of styrene tube. **2.** I added new jerry can mounts from an old Eduard M3 half-track photo-etch sheet. **3.** The International Harvester Company (IHC) vehicles have a larger battery box that I built up with simple styrene with a brass top. **4.** For the armored side windows, I built new ones rather than covert the kit parts. **5.** I sanded off the details from the kit windscreen armor and added scratch built shutters.

6, 7. A prominent difference between the M17 and the M16 is shape of the front fender. I formed these from styrene sheet. Numerous tries, lots of filing and lots of filler were needed before I got my end result. Scratch building the complex headlight mounts was a pain. But once done, I added bent brass guards. **8, 9.** The instrument panel was completely scratch built. I punched appropriate holes and added bezel rims made from copper wire loops.

from sheet styrene with a brass top. Archer Surface details tread plate cut into thin strips was added to the outside edges of the running boards for some extra finesse.

The kit doors received new handles made from sharpened sprue that was squashed with pliers. Bent and glued into place, these really add a satisfying bit of accuracy. The IHC doors have a fillet on the upper edge of the inside face that is a quick scratch job.

Sometimes overlooked, the IHC vehicles have a completely different armored windscreen and armored side windows. The main difference is that their armored shutters are mounted on the inside surface rather than on the exterior. I sanded off the details from the kit windscreen armor and added scratch built shutters. For the armored side windows, I built new ones rather than covert the kit parts. Bolt and tie-down replacements weren't that daunting as I had clear photos and drawings. The bullet splashguard on the hood was scraped off and a new one was added four millimeters further aft. The M17 side windshield mounting side posts are wider than the M16 ones. Styrene comes to the rescue again. Several tie downs were added with thin bent rod (which I found easier than brass replacements). In a fit of photo-etched madness, I attached ABER wing nuts to the windscreen clamps.

A prominent difference between the M17 and the M16 is shape of the front fender. IHC halftracks have flat stamped fenders versus the curvaceous ones of the M16 (weird to see this adjective in this context, eh?). I toyed with the idea of carving masters and then vacuum-forming the new fenders, or cutting and pounding them into shape some brass sheet. Finally, I opted for just trial and error use of styrene sheet. Delineating the curve of the fender-to-body attachment joint and the shape of outer fender edge, I went at it again and again until it fit—doggone it! Numerous tries, lots of filing and lots of filler were needed before I got my end result. I may have not captured every angle correctly but I eventually felt satisfied with the final outcome.

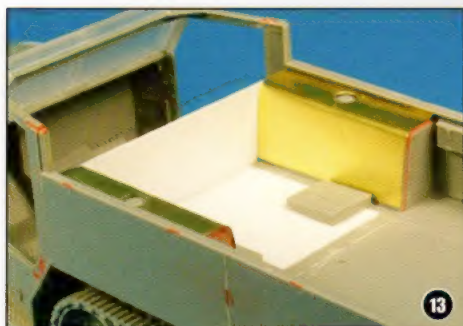
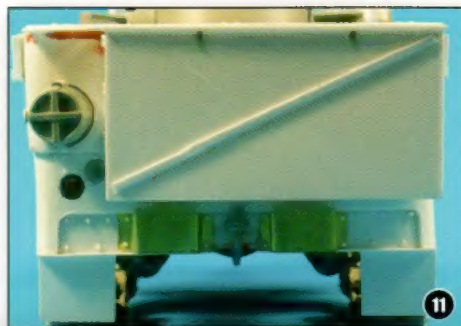
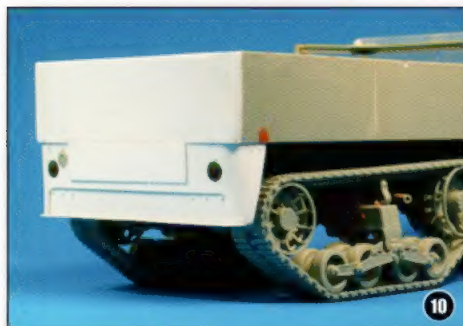
Scratch building the complex headlight mounts was a pain. But once done, I added bent brass guards. Again, good photos and the willingness to toss out imperfect attempts were keys to this mini-project.

Moving to the driver's compartment, I altered the shape of the gearshift and some other levers. DML omitted the lever for the winch power take-off control. A ball handle atop a styrene strip took care of that oversight. The IHC radiator louver control rod gets modified, too. The instrument panel was completely scratch built. I used skills acquired detailing aircraft models (yeah—and I'm proud too

—what of it?). I punched appropriate holes and added bezel rims made from copper wire loops. Behind the instrument panel, I aligned the appropriate generic Archer Transfer faces. I applied Future to simulate glass and my IHC instrument panel was complete. It's not as difficult as the pictures would make it seem. I used to be a 1/72 aircraft super-detailer, so 1/35 doesn't seem as daunting for this kinda stuff. Finally, the wiper motors were swapped with better-detailed spares from a Skybow Dodge kit.

The next subassembly was the rounded rear corners of the welded IHC body. I bent sheet styrene and jimmied them into place—super-gluing and clamping along the way. The rear plates were layered and I simulated this by using styrene sheet layers cut to the right shape and depth. I added taillights and an auxiliary power plug from my spares box to holes punched on the rear panel. The bumperettes are brass sheet with hex bolts. The M17's large rear stowage box is sheet styrene once again (man, sheet styrene is my best friend!). I detailed the pail straps, added a handle and scratch built its mount on the left rear corner.

Inside the rear compartment, the kit ammo cans were too tall to fit under the upper lip of the walls. I lopped off about two millimeters from the four ammo cans stowed in the rear corners, knowing that



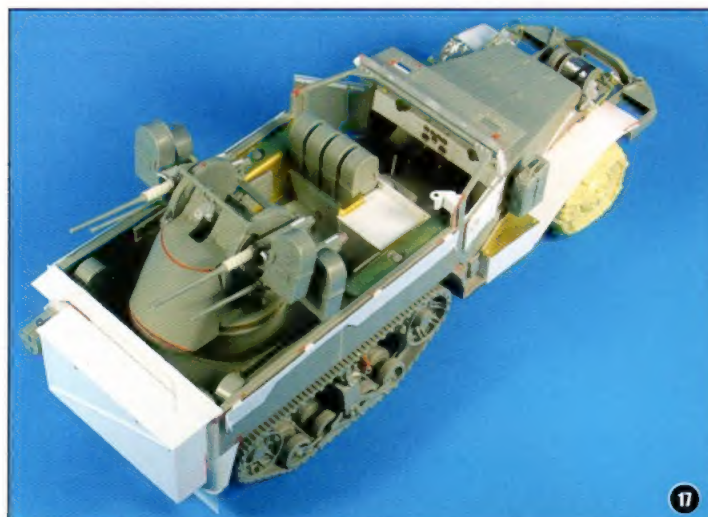
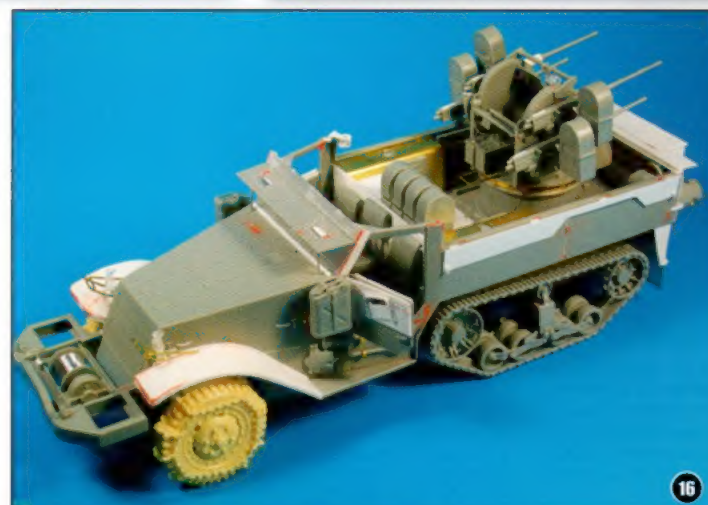
10. The rounded rear corners of the welded IHC body. I bent sheet styrene and jimmied them into place—super-gluing and clamping along the way. I added taillights and an auxiliary power plug from my spares box to holes punched on the rear panel. **11.** The M17's large rear storage box is sheet styrene once again. I detailed the pail straps, added a handle and scratch built its mount on the left rear corner. The bumperettes are brass sheet with hex bolts. **12.** Inside the rear compartment, the kit ammo cans were too tall to fit under the upper lip of the walls. I lopped off about two millimeters from the four ammo cans stowed in the rear corners. **13.** I filled in the seams and rounded off the edges of the DML fuel cells. On top of this, I added a bent brass sheet square with an appropriate hole punched out. **14, 15.** Detailing the M45 quad .50 caliber machine gun mount isn't difficult. I made some barrel collar resin castings from the Tusca Browning MG, my favorite styrene Ma Deuce. I added copper wire to the trigger solenoids and the gun sight while also replacing the charging handles with some resin spares. The kit ammo feed trays with their molded in ammo rounds aren't very realistic. I placed lengths of a Tusca .50 caliber ammo belt into four scratch built trays made from styrene. This is a vast improvement over the kit-supplied parts. Various other bolts, wing nuts and wiring were added—especially to the battery and the generator. **16, 17.** The kit ready for paint!

they would be sufficiently apart from the others to note any difference. The four cans received lead foil retaining straps with copper wire buckles. The spare MG barrel clamps got wire details to simulate the clamp mechanisms. Lend lease vehicles were shipped with the full complement of U.S. small arms, but I concluded that Soviet fitters would have removed these and their brackets.

I cut off the kit floor between the fuel cells as the M17 has a different locker configuration. Panel lines were scribed onto a replacement slab and I

added salvaged hinges from the removed floor section. Small wire lifting loops were added to the floor lockers. I constructed two new shelves for the ammo cans and radio that were added to a new forward bulkhead. Below these shelves, the two lockers found on IHC MGMCs were added. The distinctive IHC antenna mount was a simple scratch job, too.

The DML fuel cells are modeled as huge blocks when in reality, they are rounded cells covered by an outer sheet panel. I filled in the seams and rounded off the edges. On top of this, I added a bent brass sheet square with an appropriate hole punched out. I went through all this trouble just so I could see the gap between the sheet panel and the rounded cell behind it. I confess madness, truly.



Chopping the meat

Detailing the M45 quad .50 caliber machine gun mount isn't difficult, as pictures of survivors

abound. The only deficiencies in the DML machine guns are the meager perforated barrel collars, the charging handles and the ammo feed trays. Since destiny hasn't yet chosen to drop a winning Powerball ticket into my pocket, I forego getting any of the excellent brass barrel replacements and decided on the cheap route. I made some barrel collar resin castings from the Tasca Browning MG, my favorite styrene Ma Deuce. I added copper wire to the trigger solenoids and the gun sight while also replacing the charging handles with some resin spares. The kit ammo feed trays with their molded in ammo rounds aren't very realistic. I place lengths of a Tasca .50 caliber ammo belt into four scratch built trays made from styrene. This is a vast improvement over the kit-supplied parts. Friction clips and a brace that held the gunner's armored plates in place were made from simple styrene bits (once again!). Various other bolts, wing nuts and wiring were added—especially to the battery and the generator. I removed the generator fuel cap and put one on the right side, as is more commonly seen. The exhaust pipe (P13) didn't get mentioned in the directions but once bent correctly and with a new exhaust end, it's an essential part of the generator. I consulted photos for its shape and location. DML provides a photo-etch bolt strip (MA5) that is too



wide. About 0.5mm was trimmed from both edges of the strip and was glued below base plate (P21). A small gap should appear below the photo-etch strip and the base, so I shimmed the gun mount to the correct height.

I wanted to depict a Soviet vehicle with a worn whitewash scheme as it might have appeared in early 1945. I settled on the "hairspray method" to achieve my desired result. Starting off with lightened Tamiya olive drab as the basecoat, I randomly applied some even lighter OD. After I covered the model in Future and let it cure, I applied the decals. Once dry, I airbrushed some hair spray over the whole model. After about thirty minutes, I applied several uneven but light layers of Tamiya flat white. To induce wear onto the white camouflage, I tried to map out logical areas of crew scuffing and surfaces susceptible to normal wear and tear. Fifteen minutes after the white paint application, I applied some warm water, let it soften the hair spray, and then gently scrubbed off the white paint with a round brush. It's important to work on small areas only. I often start and stop on various areas of the M17 to keep my perspective fresh and to produce a cohesive look. The Red Army marked kills with the Soviet Star, unlike the U.S. or Brits who would use enemy emblems like the Swastika or Iron Cross. I applied two red star "kill marks" onto the turret

armor—even though Luftwaffe action by this point in the war would have been minimal. Hey, this crew was super lucky and accurate, OK?

Russian vehicles didn't seem to carry as much junk as their western counterparts. Was this noble Soviet austerity versus fat American/British capitalist greed? Let the historians decide! I added an aluminum foil tarp onto the front right fender and tossed some jerry cans onto the bumper. Otherwise, I left the interior Spartan. Several selective pin washes and dirtying of the M17 interior followed and I made sure to blend in my stowage when appropriate. Once satisfied, I sealed everything with Vallejo flat coat. I sprinkled a few Mission Models spent cartridges and linkages into the corners to add to the clutter. I can't imagine what the floors of

these looked like after an extended fire mission!

I wanted a somewhat dirty and muddy vehicle exterior but not so much as to obscure the nicely detailed wheel chains and rear suspension. I started with Hudson & Allen mud, applied with warm water. Layering various earth tone pigments allows more build up. I add some Future to depict wet areas to selected nooks and crannies.

The overall M17 project is an exercise in stringing together multiple subassemblies. I love modeling obscure subjects and for now, this is what's required to make an accurate M17 Meat Chopper! 🚫

—Roy Chow

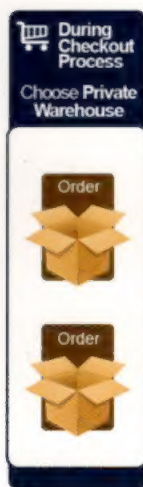
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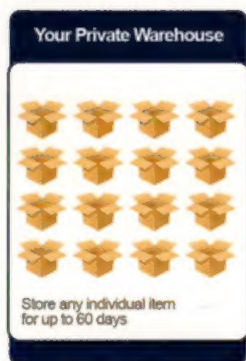
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